

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA
CIVIL ACTION

AGERE SYSTEMS, INC., et al.,
Plaintiffs

v.

ADVANCED ENVIRONMENTAL
TECHNOLOGY CORPORATION, et al.,
Defendants

NO: 02-cv-3830

PRETRIAL MEMORANDUM
OF
NRM INVESTMENT COMPANY'S

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Part I

Nature of the Case to be Presented and Issues to be Addressed: Nexus, Volume and Harm

(a) Outline of Issues Involving NRM Investment Co.

For part of the disposal and release period pertinent to these proceedings, Plaintiff TI's predecessor Bundy and later Defendant NRM Investment Co. (Investment Co.") operated a steel plant in Malvern, Pa. doing business as National Rolling Mills ("NRM"). The comments in this and the following sections are directed to the Investment Co.'s period of ownership of the factory and not to the Bundy ownership. Investment Co. advances three major defenses: nexus to the site is doubtful, if there is a nexus, volume is hugely overstated, and the nature of the waste did not drive the EPA remedy.

Nexus: plaintiffs cannot present sufficient, reliable evidence to establish that NRM disposed of waste at the Boarhead site. Plaintiffs must rely upon the testimony of drivers for the DeRewal family to establish any link between NRM and Boarhead. Only one driver stated that he took its waste there. However, this same driver, when deposed in this litigation said freely that he had lied under oath at an earlier EPA deposition when he testified that he took no such waste to Boarhead at any time; instead, after changing his story, he said he took a minimum amount there. The court will decide the factual issue of the credibility of this one

witness whose contradictory testimony forms the sole link between NRM waste and Boarhead. There are no documents or other evidence that link NRM to the site or establish its alleged volume. If the Court does not credit the statement of the one driver, there will be no evidence to link NRM with Boarhead. If the Court gives credence to the driver, this can establish only a minimal amount of NRM waste that could have been disposed at the site.

Volume: With minor variations, plaintiffs' allocate responsibility among the parties based solely upon the volume of waste from each party that reached Boarhead. Even if the court credits the testimony of the driver mentioned above at his deposition in this litigation as opposed to the prior EPA deposition, the maximum volume of NRM waste would amount to ten to fifteen truckloads of "pickle liquor" waste which would total approximately 50,000 gallons. Yet, plaintiffs will claim that NRM produced nearly 1,800,000 gallons of pickle liquor during a five year plus disposal and release period and of that total some 650,000 gallons reached Boarhead. The court will be called upon to determine whether plaintiffs have produced any evidence of pickle liquor disposal over 50,000 gallons going to the site and whether plaintiffs' assertion about the additional 600,000 gallons was pure speculation.¹ NRM believes that the court will find the evidence

¹ *New Jersey Turnpike Authority. v. PPG Industries, Inc.* 197 F.3d 96, C.A.3 (N.J.), 1999

against it lacking in sufficient reliability to form the basis for the plaintiff's suggested allocation.

Harm: EPA's Boarhead investigation identified the chemicals of concern released at the site. It emphasized buried drums that leaked and bulk waste dumped in trenches. The focus of the remediation was volatile organic compounds. NRM did not dispose any solvents, only pickle liquor. NRM's expert, relying upon the EPA documents, will explain that pickle liquor waste is nothing more than rusty water, virtually harmless and that the great majority of the cleanup costs were apportionable and attributed to the PRPs generating the more toxic chemicals.

The evidence will also be that NRM, without receiving a special notice letter, voluntarily joined the OU-1 group and, together with its successor in interest has already paid \$699,109.86 in remediating the groundwater problems at the site. As an exception to the purely volumetric allocation, plaintiffs assign a 50% discount to themselves because of their cleanup efforts after receiving notice letters. Based upon that rational, NRM should be assigned a greater discount for its uncoerced cooperation.

Since NRM participated in funding the remediation, it has a cost recovery counterclaim and/or crossclaim against every plaintiff and other defendant based upon the *Atlantic Research*² theory allowing such claims under CERCLA section

² 551 U.S. ----, 127 S.Ct. 2331, 168 L.Ed.2d 28 (2007)

107. It likewise has contribution claims to the extent its contribution to date exceeds any share reasonably assigned to it; the others are jointly and severally liable to it.

(b) History Pertinent to the NRM Investment Nexus and Volume Issues

The following is a short-form of the factual background in support of the foregoing issues. See the statement of facts in part five for a more complete history.

Plaintiffs by their complaint of August 22, 2002, calling themselves the “Boarhead Farm Agreement Group” began a CERCLA section 113 contribution claim against twenty-two defendants. They have since amended their complaint five times to state their claims individually as opposed to a unified group and by court allowance have added cost recovery claims arising under CERCLA section 107. Their Fifth Amendment names eight defendants, the others determined to be financially irresponsible or settled. Since the filing, three of the eight settled, leaving five defendants for trial. NRM is one of them.

Plaintiffs allege that the time of Boarhead disposal was from the beginning of 1972 to early 1977. They divide this roughly five-year period into four separate time intervals. Each internal, they contend, relates to plaintiffs’ view of the relative availability of Boarhead for waste disposal as opposed to other sites to which the

DeRewal family, their employees, and DeRewal associate Jonas had access. NRM agrees generally with the four periods identified by plaintiffs and, with the exception of the pre-Ontario beginning date, agrees with the dates. Plaintiffs speculate that, during the pre-Ontario and gap periods, defendants' wastes, in large part, must have gone to Boarhead by default, and even during the Ontario and Wissinoming periods at least some of it went there. They ascribe fractions ranging from 15%, to 85 to the amount of defendants' wastes taken there. With one small exception they do not discriminate among defendants respecting these fractions.

NRM contends that the fractions are purely forced arithmetic contrived by plaintiffs to reach a result. These numbers rest upon *no* evidence and must be wholly disregarded. Discovery shows that the DeRewal family had in fact numerous other dumping sites that they used as alternatives to Boarhead, Ontario and Wissinoming. Any additional trip to Ontario or Wissinoming, or any trip to an alternate site by DeRewal would adjust the arithmetic with some \$150,000 at stake for each percentage point. NRM will also show that NRM employed other transporters during the periods in question, including the gap period. The court, will, therefore, decide issues relating to the sufficiency and quality of the evidence to establish that NRM waste went to Boarhead, and if so how much.

As explained at the outset, NRM was one of two companies that operated NRM during the mid-1969 to 1977 period. Investment Co. operated NRM from

May 31, 1974 until August 31, 1979. This covered part of the Ontario period, and all of the gap and Wissinoming periods, a span totaling three-and-a-half years. One of the plaintiffs, TI Group Automotive Systems, LLC (“TI”) operated NRM during the pre-Ontario period from 1969 to December 1, 1973 and part of the Ontario period until Investment Co.’s purchase of NRM on May 31, 1974, a span covering just under four-and-a-half years. (It was then known as the NRM division of Bundy.) Plaintiff TI argues that all of the NRM waste transport to Boarhead began on the date TI transferred its assets to NRM. NRM contends that there was no such change in its waste disposal plans and practices with the change of asset ownership. Accordingly, if plaintiffs’ theory of percentages of NRM wastes going to Boarhead depends on period of NRM operations, a greater amount should be assigned to TI than NRM.

(c) Harm caused by Wastes Released at Boarhead, the EPA Documents and the Opinions Based thereon

The following history is useful in determining the issue of harm. NRM’s waste pickle liquor produced during the 1974 to 1977 time period consisted of weak hydrochloric acid and ferrous or ferric chloride. EPA engaged in certain Boarhead response activities commencing in 1984 with a Site Investigation and Preliminary Assessment which lasted until 1986. The

Agency determined that there were both inorganic and organic contaminants at Boarhead.

In 1989 EPA issued a Hazard Ranking System report leading to Boarhead's NPL listing. The study concluded that the NPL ranking was primarily due to organic and inorganic contaminants, none of which included the hydrochloric acid or ferrous compounds constituting the constituents in NRM's pickle liquor waste.

EPA in 1991, through a contractor, commenced a Remedial Investigation and Feasibility Study ("RI/FS") of the site which lasted until 1997.

Two removal actions in 1992 and 1993 involved drums, soil and wastewater. As with the 1989 report neither of the removals involved NRM pickle liquor constituents.

A third removal action in 1995 involved organic and inorganic contaminants to eliminate migration of contaminated groundwater. Again, the third removal involved no such constituents.

Upon completion, the RI included a "Baseline Human Health Risk Assessment" identifying metals and organic compounds exceeding acceptable limits, the prominent metals being arsenic and chromium. The RI did not identify hydrochloric acid or ferrous compounds as chemicals of concern.

In November 1998, the EPA issued a record of decision ("ROD") specifying, i. a., groundwater extraction, metals precipitation, air stripping,

installation of monitoring wells, and residential water treatment. These were later assigned to what would be described as OU 1 activities.

In its separate history, the ROD notes a 1973 spill of 3000 gallons of ferrous chloride, the year prior to Investment Co.'s acquisition of NRM. Later spills did not involve NRM's waste.

The ROD then lists contaminants of concern for surface and subsurface soils, surface water and groundwater, sediments and hot spots. There are no ferrous compounds listed there. The other argument as to NRM waste – that NRM's hydrochloric acid that may have, like other acids, enhanced the mobility of metals to groundwater – is contradicted by the findings of the EPA investigation.

Concerning the hydrochloric acid, the RI stated:

The effects of acid spills probably were short-lived because the acids would have been flushed from the soil by infiltrating water and possibly would have been neutralized by the limited buffering capacity of the soil.

Based largely upon the foregoing, Investment Co.'s expert, a toxicologist, opines that NRM's pickle liquor, consisting as it did, of spent hydrochloric acid with ferrous compounds, was in essence "rusty water" that did not contribute either directly or indirectly to the cost of the Boarhead response actions. Instead, the response costs were incurred due to the removal of 2,500 plus of drummed wastes and the migration of organic solvents from the drum location. The court can find

on this evidence that the great majority of the response actions were the result of the organic solvents.

Plaintiffs' expert in this area is a civil engineer whose experience is in discerning the sources, movement and remediation of chemicals in the environment. It is his opinion that the release of all corrosive wastes and metals and even inert materials led to the environmental conditions that led to the response activities. Unlike Investment Co.'s expert, plaintiffs' expert does not assign any percentage of the remedy costs to any generator or group of generators.

Under the Sec. 113 contribution section of CERCLA, the court is to use whatever equitable factors it deems appropriate to allocate costs among the generators and arrangers. The plaintiffs basically use a volumetric allocation without discriminating much among the generators and arrangers. Neither they nor their experts explain their theory in doing so. A variation from their purely volumetric allocation is plaintiffs awarding themselves with a fifty percent credit for cooperation in the remediation effort. They, unlike Investment, were all recipients of special notice letters as explained above and their so-called cooperation was encouraged with an EPA special notice club. Still plaintiffs ignored the fact that Investment Co., together with its successor in interest has contributed \$699,109.86 to the effort and yet they gave it no discount or even credit.

The Court, in making the allocation, will be called upon to consider a number of factors, including the so-called Gore factors, to determine if any factors other than volume apply, namely the ability to trace and distinguish wastes with disparate effects upon the environment; the degree of toxicity of the contaminants and concomitant risk exposure; fate and transport of various contaminants; the relation between the separate contaminants and the remediation costs; and, the degree of cooperation among the parties.

Part II

Witnesses for NRM Investment Co.

(a) Witness by NRM Investment

- (1) John H. McCoy – history of NRM Investment Company and nature of its business at various stages. The Bundy Company and Investment Co.'s periods of ownership of NRM. Receipt of ChemFab 104(e) letter.
- (2) John Barsum, a driver who transported NRM waste pickle liquor daily during part of the period in question, none to Boarhead.
- (3) Manfred DeRewal, Jr. a driver who transported NRM waste pickle liquor daily during part of the period in question, either none to Boarhead or a minimum amount to Boarhead.

(4) Bruce DeRewal a driver who transported NRM waste pickle liquor daily during part of the period in question, none to Boarhead.

(5) Fred Piotti, Sr. – operation of the NRM pickle line and reclamation equipment; volume of pickle liquor produced; components of NRM pickle liquor; unlawful disposal of pickle liquor by Jonas or DeRewal driver; NRM's use of alternate transport companies; intended destination of NRM pickle liquor.

(6) Larry Piotti – same subjects as Fred Piotti, Sr.

(7) Peter Freda – same subjects as Fred Piotti, Sr.

(8) Frederick Chesky – same subjects as Fred Piotti, Sr.

(9) Merrill Winters - same subjects as Fred Piotti, Sr.

(10) Santo F. Quici – waste hauling contract with Jonas for NRM pickle liquor; absence of any contract change during period in question.

(11) Timothy T. Bergere – accounting for EPA and Pa.DEP costs for all periods and allocations thereof among projects; amounts paid by plaintiffs, settled defendants, non-settled defendants, and other PRPs, including Investment Co.

(12) EPA and Pa.DEP representatives – same subjects as Timothy T. Bergere and, if not otherwise stipulated, to introduce relevant EPA and Pa.DEP documents.

(13) Sarah Keating, Esq. at EPA – factors taken into account in deciding to issue or not issue special notice letters.

(14) Michael A. Hendershot, Esq. at EPA same as above.

(15) James H. Harper, Remedial Project Manager at EPA. – same as above.

(16) Joan Martin-Banks – at EPA – same as above.

(17) Frank Mink – environmental toxicologist – expert opinion evidence respecting nature of NRM waste pickle liquor allegedly disposed of at Boarhead, its persistence in the environment, the extent to which it contributed to the investigation and remediation of the Boarhead site, and his identification of contaminants driving the Boarhead remedies.

(18) Joseph J. Hochreiter, Jr. – expert opinion evidence respecting wastes of plaintiffs and settled defendants.

(b) Witnesses Listed by Others who Might be Called by NRM Investment

(i) Listed by Plaintiffs:

(1) Geoffrey Seibel is a Principal of de maximis, inc., 1125 South Cedar Crest Boulevard, Suite 202, Allentown, PA 18103. He will testify concerning the response actions taken by the OU-1 and OU-2 Groups, EPA's approval of those actions, and the costs thereof.

(2) Timothy Bergere is a partner with Montgomery, McCracken, Walker & Rhodes, LLC, 123 South Broad Street, Philadelphia, PA 19109. He will testify concerning his management of the escrow accounts for the Boarhead Farms OU-1 and OU-2 Site Groups, the manner in which Group funds have been raised from participating Group members, the 2007 Agere settlement,

the mechanics of assessment issuance, the approval process for the payment of Group costs, and the ministerial aspects of fund receipts and expenditures. As custodian of the escrow accounts, he will testify concerning the financial records maintained by his law firm in administration and management of Group funds.

- (6) John P. Judge is a Partner at Montgomery, McCracken, Walker & Rhoads, LLP, 123 South Broad Street, 24th Floor, Philadelphia, PA 19109 and will testify to negotiation of the settlement embodied in the 2001 Consent Decree and about the 2007 Agere settlement.
- (7) Bruce DeRewal lives at 2430 Willow Street Dr., Quakertown, PA 18951. He will testify concerning his employment at DCC and the wastes he hauled from DCC customers.
- (8) Freddie DeRewal was last known to live at 1310 Lonely Cottage Rd., Upper Black Eddy, PA. He will testify concerning his employment at DCC and the wastes he hauled from DCC customers.
- (10) Jeffrey Shaak lives at 1036 Old Bethlehem Road, Perkasie, PA. He will testify concerning his employment at DCC and the wastes he hauled from DCC customers.
- (11) John Barsum lives at 612 Frogtown Road, Ottsville, PA 18942. He will testify concerning his employment at DCC and the wastes he hauled from DCC customers.
- (14) Linda Cochran works at Frenchtown Flowers, 203 Harrison Street, Frenchtown, New Jersey. She will testify as to conversations she observed between Fred DeRewal and Mr. Leuzarder and Mr. Landmesser at the Site.
- (16) Elaine M. Gawronski lives at Marienstein Rd, Upper Black Eddy, PA 18972. She will testify concerning her work as a bookkeeper for DCC.
- (17) George Smajda is employed by the New Jersey Department of Environmental Protection at 401 State Street, Trenton, New Jersey. Mr. Smajda will testify concerning the Marvin Jonas business records maintained by DEP.
- (18) Craig Coslett is an engineer at de maximis, inc., 1125 South Cedar Crest Boulevard, Suite 202, Allentown, PA 18103. He will testify concerning the

excavation of drums during the OU-2 work and sampling done of the contents of certain of those drums.

- (19) Peter Noll is employed by the Bucks County Department of Health at Neshaminy Manor Center, Doyelstown, PA. Mr. Noll will testify to his inspections of the Site and as the custodian of BCDOH records relating to the Site.
- (20) Richard Cheri lives at 106 Leisure Court, Wyomissing, PA and will testify to Carpenter accounting records and DCC.
- (21) William Reger lives at 3051 River Road, Reading, PA 19605 and will testify to Carpenter accounting records and DCC.
- (22) James I. Adams lives at 3340 Stoner Avenue, Reading, PA 19606 and will testify to Carpenter's waste acids, DCC and DeRewal.
- (23) David E. Mann lives at 347 McCoy Lane, Leesport, PA 19533 and will testify to Carpenter's waste acids, DCC and DeRewal.
- (24) Charles Polinko is employed at Carpenter's Reading, PA facility and will testify to Carpenter's chemical analysis of its waste acids.
- (25) Robert Elbert lives at 2416 Papermill Road, Wyomissing, PA 19610 and will testify to Carpenter's waste acids and removal of those acids by outside hauling companies.
- (26) Santo F. Quici lives at 76 Birch Lane, Paoli, PA 19312 and will testify to NRM matters.
- (27) Frederick Chesky lives at 289 Sweetbriar Circle, King of Prussia, PA and will testify to NRM matters
- (28) Peter Freda lives at 713 West Rolling Road, Springfield, PA 19064 and will testify to NRM matters
- (29) Merle Winters lives at 12 Foster Lane, Downingtown, PA and will testify to NRM matters

- (30) Fred Piotti lives at 1440 Sugar Town Road, Berwyn, PA and will testify to NRM matters
- (31) Arthur T. Curley lives at 17 Far View Road, Great Meadows, NJ 07838 and will testify to Ashland's wastes and dealings with DeRewal and AETC.
- (32) John P. Leuzarder, Jr. lives at Beaver Run Road, Lafayette, NJ 07848 and will testify to AETC's business, DeRewal, Ashland and Diaz.
- (33) Robert W. Landmesser lives at 400 Ocean Road, Vero Beach, FL 32963 and will testify to AETC's business, DeRewal, Ashland and Diaz.
- (34) Theodore Jenney lives at 3990 Lake Road, Holley, NY 14470 and will testify to Diaz wastes and removal of those wastes by outside haulers.
- (35) Stanley Chiras lives at 1599 Southwest Shady Lake Terrace, Palm City, FL 34990-2785 and will testify to Diaz wastes and removal of those wastes by outside haulers.
- (36) Diane Shampine lives at 3840 Hulberton Road, Holley, NY 14470 and will testify to Diaz wastes and removal of those wastes by outside haulers.
- (37) Charles Wilcox, Jr. lives at 252 Route 46, Vienna, NJ and will testify to Ashland's wastes and removal of those wastes by outside haulers.
- (38) Howard Hendershot lives at 10 Sycamore Lane, Columbia, NJ 07832 and will testify to Ashland's wastes and removal of those wastes by outside haulers.
- (39) Charles Hendershot lives at 473 Route 94, Columbia, NJ 07832 and will testify to Ashland's wastes and removal of those wastes by outside haulers.
- (40) Alberto Celleri lives at 10 Baldwin Court, Roseland, NJ and will testify to Ashland's wastes and removal of those wastes by outside haulers.
- (41) Mary Kollmar lives at 1151 Center Avenue, Pottstown, PA and will testify to Handy's wastes and DCC.
- (42) Thomas M. Curran lives at 134 Little Road, Perkiomenville, PA 18074 and will testify to Handy's wastes and DCC.

(43) James McElya lives at 291 Jeffries Road, Downingtown, PA and has a business at 301 Jeffries Road, Downingtown, PA and will testify to Handy's wastes and DCC.

Should one or more of these individuals be unavailable to testify at trial, Plaintiffs intend to offer into evidence portions of the transcripts of the depositions taken in this action of those individuals. Transcripts of the depositions taken in this action have not been listed as exhibits, but may be used at trial as permitted. NRM Investment joins in this regarding portions and exhibits it points out. .

Plaintiffs designate the following witnesses whose testimony is expected to be presented by means of a deposition in their case in chief:

- (47) Deposition transcript testimony of William C. Olasin taken on May 14, 2001 in *Rohm and Haas Co. v. American Cyanamid Co., et al.*, No. 95-1864 and 991891 (D.N.J.).
- (48) Deposition transcript testimony of Arthur T. Curley taken on August 21, 1996 in *U.S. v. Davis, et al.*, No. 90-0484/P (D.R.I.).
- (49) Deposition transcript testimony of Marvin Jonas taken on 6/20/95, 6/4/95, 6/22/95, 7/18/95 and 7/19/95 in the *Buzby Landfill* litigation.

(ii) Listed by Carpenter Technology:

1. Richard Cheri
2. Charles Polinko
3. William Reger
- 4.
5. Freddi DeRewal
6. Bruce DeRewal
- 7.
8. John Barsum
9. Dr. Franklin Mink (expert)
10. Joseph J. Hochreiter, Jr. (expert)
11. EPA representative

(iii) Listed by AETC:

Plaintiffs:

- A. Ford Motor Company:
 - 1. Brian Bussa
- B. SPS Technologies, LLC:
 - 1. David Stewart
 - 2. Dennis Shea
- C. American Cyanamid (Cytec Industries Inc.):
 - 1. Sidney A. Frankel
 - 2. Joel Jerome
- D. Agere Systems, Inc.:
 - 1. Marianne Santarelli
- E. TI Group Automotive Systems LLC: (See NRM)

Non-Settling Defendants:

- A. Advanced Environmental Technology Corp. ("AETC"):
 - 1. Robert W. Landmesser
 - 2. John P. Leuzarder, Jr.
 - 3. Walter Risi
 - 4. Kenneth Goldstein, PE (expert witness)
- B. Carpenter Technology Corporation:
 - 1. James I. Adams
 - 2. Richard C. Cheri
 - 3. Robert Elbert
 - 4. David E. Mann, Sr.
 - 5. William Reger
 - 6. Edward M. Straka
 - 7. Franklin Mink (expert witness)
- C. Handy & Harman Tube Co., Inc.:
 - 1. Thomas Bell
 - 2. Thomas M. Curran

3. Mary A. Kollmar
4. James McElya
5. Larry Rees
6. Kirk W. Brown (expert witness)

D. Ashland, Inc.:

1. Alberto Celleri
2. Arthur T. Curley
3. Charles Hendershot
4. Howard L. Hendershot
5. Charles R. Wilcox, Jr.
6. Gordon R. Jamieson, PG (expert witness)
7. James F. Roetzer, Ph.D.(expert witness)
8. W. Leaig Short, Ph.D., P.E. (expert witness)

F. Diaz Chemical Corporation:

1. Stanley J. Chiras
2. Theodore Jenney
3. Diane Shampine

Settled Defendants:

A. Thomas & Betts:

1. Philip Carey

B. Flexible Circuits:

1. Melvin A. Bach, III.
2. Richard T. Yeatman, Sr.
3. George B. Stollsteimer
4. Thomas E. Pease, Ph.D., P.E. (expert witness)

C. Merit Metals:

1. Lorna Goldstein
2. Leonard Sayles
3. Leonard Wolberg

D. Techalloy:

1. Theodore Hahn
2. Thomas Hess
3. Peter Senin

4. Alfred Stufflet
5. Franklin Mink (expert witness)

Non-Party Witnesses:

- A. DeRewal Chemical Company:
 1. John Barsum
 2. John C. Bean
 3. Karen Castillo
 4. Linda Cochran
 5. Bruce DeRewal
 - 6.
 7. Elaine Gawronski
 8. Karen Porter
 9. June A. Stephens
- B. Former District Attorney, David F. Michelman, Esq.
- C. N. Perkiomen Township Road Master & Fire Marshal, John T. Moran, Sr.

(iv) Listed by Handy and Harman:

Dr. Kirk W. Brown, Ph.D. – Dr. Brown will testify with respect to the following: volumes at the site.

Joseph J. Hochreiter, Jr. – Mr. Hochreiter will testify with respect to the nature and extent of wastes that were generated for plaintiffs and settled defendants including the following:

- American Cyanamid's wastes generated totaled 10,546,745 gallons; extrapolated quantities of wastes generated totaled 14,921,473
- National Rolling Mills' wastes prior to Investment Co.'s ownership.
- Philco Ford's wastes generated totaled 708 55-gallon drums of waste
- Standard Press Steel's wastes generated totaled 134,080 gallons; extrapolated quantities of wastes generated totaled 1,236,088

- Western Electric's wastes generated from the Reading facility totaled 313,836 gallons and 1,828,197 pounds; extrapolated quantities of wastes generated totaled 2,510,688 gallons and 14,625.576 pounds
- Western Electric's wastes generated from the North Carolina facility totaled 101,235 pounds; extrapolated quantities totaled 4,859,280 pounds
- Western Electric's wastes generated from the Allentown facility totaled 111,800 gallons; extrapolated quantities totaled 807,200 to 928,000 gallons
- Bostik South's wastes generated totaled 37,665 gallons
- Ciba-Geigy's wastes generated totaled 69,367 gallons; extrapolated quantities totaled 728,239
- Knoll International Inc.'s wastes generated totaled 39,500 to 45,000 gallons
- Plymouth Tube Company's wastes totaled 28,000 gallons; extrapolated quantities totaled 299,000
- Quikline Design and Manufacturing Company's wastes generated totaled 1,925 gallons
- Simon Wrecking's wastes generated totaled 178,000 gallons
- Sperry/Burroughs' wastes generated totaled 3,615 gallons

Rule 30(b)(6) Witnesses

Brian J. Bussa (Ford)

Dennis Shea (SPS)

Marianne Santarelli (Agere)

Joel Jerome (Cytec)

The foregoing witnesses will testify on the following issues:

- Waste streams generated at their respective facilities during relevant time periods
- Drummed waste
- Use of TCS
- Disposal of wastes from their respective facilities

Individuals Verifying Plaintiffs' Responses to Defendants' Joint Contention Interrogatories

Louis J. Ghilardi (Ford)

Kathryn Lamping (Ford)

Timothy M. Guerriero (TI)
Thomas E. Mesevage (Cytec)
Jocelyn T. de Grandpre (Agere)
Thomas S. Cross (SPS)

The foregoing witnesses will testify with respect to plaintiffs' responses to the Joint Contention Interrogatories of Advanced Environmental Technology Corporation, Ashland, Inc., Carpenter Technology Corporation, fcg, inc., Handy & Harman Tube Company, Inc. and NRM Investment Company, dated April 17, 2007, November 21, 2007 and/or February 8, 2008.

(v) Listed by Ashland:

Court Reporters for EPA depositions and 6/19/78 Plea Hearing

Fact Witnesses

Arthur Curley
Peter Noll
Gary Schoening
Edward Marti
Danny DeGarmo

Part III

Exhibits

(a) By NRM Investment

- (1) Worthington Steel Company's responses to EPA's 104(e) request in this matter and in G.R.O.W.S., exclusive of laboratory reports.
- (2) EPA representative interview with Richard Minthorn.
- (3) Group agreement for OU 1.
- (4) Special notices letters issued to selected Boarhead PRPs.

- (5) Documents to be produced by Timothy T. Bergere showing EPA and Pa.DEP accounting and accounting among parties and non-parties and OU 1 and OU 2 expenses.
- (6) EPA Hazard Ranking System Report of September 1987
- (7) EPA's RI/FS of 1997 and its exhibits including the Baseline Risk Assessment.
- (8) EPA's ROD of 1998 and its exhibits.
- (9) Frank Mink's expert report and its exhibits.
- (10) Joseph J. Hochreiter, Jr. expert report, its appendices, and the documents he considered as listed in Part 6 of his report, exclusive of any unauthenticated Jonas records or laboratory reports.
- (11) Jonas Inc 1978 fiscal year report to NJDEP (Exhibit 9 to Hochreiter deposition.)
- (12) EPA's 104(e) request to Investment Co. respecting ChemFab in Doylestown.
- (13) Deposition notes of testimony in this litigation to the extent that the witnesses separately listed are unavailable for trial testimony.
- (14) Deposition testimony of Manfred F. DeRewal, Jr. of February 26, 1997.
- (15) Deposition testimony of John Barsum of June 4, 1997.

(b) Exhibits by Others – Adopted or Not Opposed

This adoption or lack of opposition is based upon descriptions of exhibits.

Counsel reserves the right to object to any such exhibit that contains material not fairly described in the various lists, or if the numbers of the preliminary list are changed in a later filing.

(i) Listed by Plaintiffs:

1-46, 53, 65, 67-147, 152, 162-169, 181-188, 197-213, 228, 232-264, 275, 277-279, 282, 285-289, 291, 294, 299-304, 307-312, 327, and 305-306 and 314 without lab reports. The foregoing is exclusive of any unauthenticated Jonas records other than bills of lading issued by NRM to Jonas.

(ii) Listed by Carpenter Technology:

1-5, 24-27 The foregoing is exclusive of any unauthenticated Jonas records other than bills of lading issued by NRM to Jonas .

(iii) Listed by AETC:

68 - 70, 76, 156, 281-302, 306-318, 331, 354, 404, 406, 690-746, 751, 767, 777, 779-789, 862, 867-878, 880-1063, 1067-1079, 1081, 1087-1093, 1095, 1097-1098, 1100-1114, 1139-1242, 1524-1530, 1543-1561, 1563-1565,

1582-1583, 1586-1607, 1613-1627, 1633-1654, 1673-1681, 1688-1745,
1831-2167, 2179-2186, 2509-2510, 2514, 2517

The foregoing is exclusive of any unauthenticated Jonas records other than bills of lading issued by NRM to Jonas.

(iv) Listed by Handy & Harman: (Not numbered)

American Cyanamid, 1988. American Cyanamid's response to EPA's request for info in 1988. July 13, 1988. (BSAI111-BSAI135)

American Cyanamid, 1993. American Cyanamid's response to EPA's 1993 request for information. July 2, 1993. (BSAI 001625 - BSAI 001739)

American Cyanamid, 1993. American Cyanamid's response to EPA's 1993 request for information. July 2, 1993. (BSAI 001625 - BSAI 001739)

American Cyanamid, 1994. American Cyanamid's supplemental response to EPA's request for information (1993 response inadequate). March 1994. (BSAI 007751 - BSAI 007985)

Ashland, 1976a. Straight Bill of Lading; shipped to: Advanced Envirotech Company (P-51). Ashland Chemical Company. 16 Sept, 1976. (BSA022973)

Ashland, 1976b. Straight Bill of Lading Shipped to Advanced Envirotech Company (P-63). Ashland Chemical Company. Various dates in 1976-1977. (ASHL00005-00010; 00037-00044; 00048-00072, 00075-00084, 00090-00305)

Ashland, 1976c. Straight Bill of Lading. Various dates. Ashland Chemical Company

BFAG, 2006. BFAG's Initial Disclosures (Exhibit from Santarelli deposition). February 22, 2005

Bigler, 2006. Volume I Final O&M Manual Groundwater Extraction and Treatment System. February 22, 2005. (BSAI 0 63845-0 63987)

Boarhead Farms, Undated (b). Removal objectives /Treatment of test water. Undated (b). (PHKS 3772-3782)

Bridgeton Township, 1988. Bridgeton township Boarhead toxic waste site property list for well/soil tests. November 16, 1988

Carpenter Technology, 1973. Debit Memorandum for DeRewal Chemical (P-36). Sept 1973. (CART 0011)

Ciba, 1988 (a). Ciba Geigy's 104(e) response summaries. Part 1. (BSAI004014-BSAI004449)

Ciba, 1988 (b). Ciba Geigy's 104(e) response summaries. Part 2. (BSAI007370-BSAI007750)

Ciba, 1988 (c). Ciba Geigy's 104(e) response summaries. Part 3. (BSAI002322-BSI002605)

Ciba, 1988 (d). Ciba Geigy's 104(e) response summaries. Part 4. (BSAI007045-BSAI007369)

Ciba, 1997. Ciba Geigy's response and information disclosure. 1997

Crown Metro, 2003. Crown Metro's information and document disclosures. March 20, 2003

Curley, A.T. 1976. Memos regarding spent acid. 20 Sept 1976 - 14 Apr 1977

DeRewal and Carpenter, 1973a. Agreement between Derewal Chemical Co. and Carpenter Technology. 12 June 1973. (CART0001, CART 0003)

DeRewal and Carpenter, 1973b. Agreement between Derewal Chemical Co. and Carpenter Technology. 12 June 1973

DeRewal Chemical Co. 1977. Records, reports, and invoices of DeRewal Chemical Co. for AET. Various dates 1977. (BSAI 012950 - BSAI 012952)

DeRewal Chemical Co., 1970's. Records, reports, and invoices of DeRewal Chemical Co. for Flexible Circuits. Various 1970's. (BSAI 012953 - BSAI 012993)

DeRewal Chemical Co., 1973b. Proposal to SPS for service, invoice from SPS to DeRewal, handwritten notes. 1972/1973. (BSAI 016593 - BSAI 016595)

DeRewal Chemical Company, 1972. Invoice to Globe Disposal Service (P-48). 28 Aug 1972

DeRewal Chemical Company, 1972. Letter to Edward Strocka of Carpenter Technology (P-31). 14 Nov 1972. (BSAI025180)

DeRewal Chemical Company, 1972a. Letter to Edward Straka of Carpenter Technology (P-32). 27 Nov 1972. (BSAI025184)

DeRewal Chemical Company, 1972b. Invoice to Univac (P-18). 25 April 1972. (BSAI035534)

DeRewal Chemical Company, 1973a. Invoice to Quickline Design Inc. (P-41). 1973. (BSAI032908)

DeRewal Chemical Company, 1973b. Derewal Chemical Company Shipping Orders for Flexible Circuits (P-10). Various dates 1973- 1975. (BSAI051931, 051959, 051955, 051952, 051947, 051949, 051945, 051941, 051937, 051934, 051957, 051923)

DeRewal Chemical Company, 1973c. Invoices to Flexible Circuits (P-11). Various dates 1973 - 1975. (BSAI051961, 051960, 051958, 051954, 051950, 051948, 051946, 051939, 051944, 051942, 051929, 051936, 051935, 051927, 051924)

DeRewal Chemical Company, 1974a. Invoice to Etched Circuits, Inc. (P-39). 17 July 1974

DeRewal Chemical Company, 1976a. Shipping order for Plymouth Tube (P-14) 6 July 1976 and 22 Nov 1976. (BSAI052294, BSAI052301)

DeRewal Chemical Company, 1976b. Invoice to Plymouth Tube Co. (P-15). 1976. (BSAI052293-BSAI052302)

DeRewal Chemical Company, 1977. Invoices to Advanced Environmental Tech (P-47). March and April 1977

DeRewal, M., 1972b. Letter from Manfred Derewal to Al Hammer of Univac Corp (P-16). 21 Jan 1972. (BSAI035517)

DeRewal, M. 1972c. Letter from Manfred Derewal to Jack King of Burroughs Corp (P-17) 24 Oct 1972. (BSAI035503)

DeRewal, M. 1972d. Letter to Melvin Bach of Flexible Circuits, Inc. (P-9). 10 Jan 1972. (BSAI029500-BSAI029501)

DeRewal, M. 1972e. Letter to Wayne Slater of Ellwood Ivins Tube Company (P-13). 11 Jan 1972. (BSAI020570)

DeRewal, M. 1972f. Letters from Manfred Derewal to Edward Straka. 27 Nov 1972 and 14 nov 1972

DeRewal, M., 1972g. Letters and invoices between DeRewal and Philco Ford. Various 1972/1973

DeRewal, 1973a. Letter to Quickline Design regarding disposal of wastes from DeRewal Chemical Co. March 2, 1973

DeRewal, M. 1973b, Letter from DeRewal to SPS, SPS Amendment to Purchase Order to DeRewal Chemical, handwritten notes. 1972/ 1973

DeRewal, M. 1973c. Invoice to Etched Circuits, Inc. (P-39). 2 March 1973. (BSAI020495)

DeRewal, M. 1973c. Invoice to Etched Circuits, Inc. (P-39). 2 March 1973. (BSAI020495)

DeRewal, M. 1973e. Letter to Quickline Design Inc. (P-40). 2 Feb 1973. (BSAI032906)

DeVasher, 1978. Letter from Willima DeVasher (USM Corp/ Emhart Corp) to David Michelmen (Assistant District Attorney) with attached documents. 21 March 1978

Dillon, 1995. Corrosion Resistance of Stainless Steels. 1995

Drum Inventory, 1995. Boarhead Farm RI/FS Drum Inventory. Updated July 1, 1995. (AR6031-AR6037)

Environmental Chemical Control, 1976. Letter to Advanced Environmental Chemical Control Technology Corp. (P-46). 17 Aug 1976. (BSAI022920)

Environmental Quality Co., various dates. 4087C.19 Disposal papers, certification forms, coc's, waste characterization. etc. various dates. (BSAI8786-BSAI8852)

Etched Circuits, 1980. Notification of Hazardous Waste Activity. 1980-1982

Etched Circuits, 1990. Hazardous Waste Generator Annual Report 1989. May 3, 1990 BSAI082830-BSAI082952

Flexible Circuits, 1983. Letter containing brief description of processes, diagrams, and standard procedures. 27 May 1983. (BSAI082785-BSAI082800)

Flexible Circuits, 1986. Letter providing Flexible Circuits' Preparedness, Prevention and Contingency Plan (PPC). 27 Jan 1986. (BSAI082712-BSAI082722)

Flexible Circuits, 1987. Response to EPA letter and conversation. 6 Nov 1987. (FLEX00004-FLEX00005)

Ford Motor Company, 1992. Ford's response to EPA's 1992 request for information. November 24, 1992. (PHKS027497-PHKS027503)

Foster, Andrew P., 2003. Defendants Techalloy Co. Inc. and Rahns Specialty Metals Inc.'s (collectively RSM) submission to document repository. March 20, 2003. (RAHN-001 - RAHN-0037)

GROWS, 1976. Letter from Geological Reclamation Operations and Waste Systems, Inc. (G.R.O.W.S) to Bucks County Dpt. Of Health (D-8). (NOV 0198-NOV0199)

Lucent, 2005. Santarelli-5 (Letters to the EPA includes waste disposal reports, exhibit from Santarelli deposition). February 22, 2005.
AGER000069-AGER000118

Lucent, 2006a. Santarelli 3 (Letter to US EPA from Lucent Technologies, exhibit from Santarelli deposition). February 22, 2005. AGER000060-AGER 000068

Lucent, 2006b. (Letter to US EPA from Lucent Technologies, exhibit from Santarelli deposition). February 22, 2005. AGER000060-AGER 000068

Mann, D.E. 1970. Memo from D.E. Mann confirming Revere Chemical Company is no longer removing Car Tech Waste. 25 Feb 1970

McMurray, 2006. Letter to USEPA from Lucent Technologies (Exhibit from Santarelli deposition). February 22, 2005. BSAI031216-BSAI031220

Novartis, 2003. Novartis Corporation's Response to Case Management Order. March 18, 2003

NUS Corp, 1985. Preliminary Assessments of Boarhead Farms prepared for Hazardous Site Control Division USEPA. 22 August 1985

NUS Corp, 1986. Site Inspection of Boarhead Farms prepared for Hazardous Site Control Division USEPA. 20 January 1986

NUS Corp, 1990. Site Inspection using available information of Merit Metals Product Corp. NUS Corporation. 27 March 1990

Onyx, 2004. 4087C.19B Drum Disposal, Waste Manifest, Letters Coc's, Lab data. March 9, 2004. BSAI9251-BSAI9455

Plymouth Tube Company, 1988. Collection of letters between Plymouth Tube Company and USEPA / Pennsylvania DER. 1988

Powers, 2006. Correspondence between EPA and Powers (AT&T), exhibit from Santarelli deposition. February 22, 2005. AGER 000001-AGER 000005

Region III, 1992. ATSDR Record of Activity. June 28, 1992. (AR5183-AR5185)

RSM, 1992a. RSM's 104(e) response, including invoices and exhibits. September to December 1992. (BSAI032952-BSAI032977 and PHKS027010-PHKS027022)

RSM, 1992b. Response to 1992 letter from EPA requesting info. December 18, 1992. RAHN0001-RAHN0037

RT Environmental Services, 2001a. Act 2 Final Report--Former Merit Metals Corp Site. June 2001

RT, 2001b. ISRA Preliminary Assessment/Site Investigation/Remedial Action Workplan. March 2001

Sayer, 1971. Cease and Desist order from EW Sayer (Enforcement & Administrative Section) to M.H. Silverman (Merit Metal). 2 Feb, 1971

Site Map Boarhead Farms Site (P-8 5/7/03), 7 May 2003

Southland Corp., 1988(a). Southland Corp's 104(e) response summaries-- Part 1. (BSAI 006469 - BSAI 006796)

Southland Corp., 1988(b). Southland Corp's 104(e) response summaries-- Part 2. (BSAI 006861 - BSAI 007044)

Southland Corp., 1988(c) . Southland Corp's 104(e) response summaries-- Part 3. (BSAI 002958 - BSAI 003460)

Southland Corp., 1988(d). Southland Corp's 104(e) response summaries-- Part 4. (BSAI 000963 - BSAI 001117)

SPS, 1978. SPS's response to information requested from Roger Snodgrass, Manager of Central Services. February 17, 1978. (BSAI013080-BSAI013088)

SPS, 1992. SPS's response to EPA's 1992 request for information including Attachments A through D of invoices and purchase orders. November 3, 1992. (PHKS027399-PHKS027399)

Stollsteimer, G. 1987. Letter from George Stollsteimer (Flexible Circuits) to Ms Humane Zia (EPA). 6 Nov, 1987

Sylvan, 2006. Invoices, exhibit from Santarelli deposition. February 22, 2005. BSAI023408-BSAI023418

Techalloy, 1971. Account Code Invoice Distribution. 1971 Various (RAHN1222-RAHN1249)

Thomas and Betts, 2003b. Thomas and Betts Corporation's submissions to the document repository. March 20, 2003. (THOM0001-THOM0049)

Unisys, 1972. Letters and invoices between DeRewal and Unisys. Various 1972/ 1973

Unisys, 1988. Letter to USEPA in response to request for information. July 19, 1988. (BSAI001849-BSAI001852)

Unisys, 1992. Letter to USEPA in response to request for information. November 12, 1992. (PHKS027487-PHKS027492)

Unisys, 2003. Unisys Corporation's submissions to the document repository. March 20, 2003. (UNIS0001-UNIS0020)

USEPA, 1988. Marked up copy of Residential sampling and analysis plan for Boarhead Farms. (PHKS2122-PHKS2141)

USEPA, 1993a. EPA's 104(e) request for information from Mr. John Barsum. 1993. (BSAI001603-BSAI001617)

USEPA, 1993e. Federal On-Scene Coordinator's Report for Boarhead Farms NPL Site Upper Black Eddy, Bucks County, Pennsylvania June 18, 1992 to September 17, 1993. United States Environmental Protection Agency

USEPA, 1995a. Report to Harry Harbold /Region III data QA review. April 3, 1995. PHKS0741-0870

USEPA, 1995c. Report to Harry Harbold Re: Hydrogeological Review. December 4, 1995. PHKS17-571758

USEPA, 1998. Superfund Record of Decision. USEPA, EPA/ROD/R03-99/009. November 18, 1998

USEPA, 2003. Letter to de maximis, Inc. and Bidgetowntwp. November 27, 2003. (PHKS061394-PHKS061399)

USEPA, 2004. Interview Summaries of Calvin Abbott. December 1, 2004. (THOM0050-THOM0099)

USEPA, 2006. Santarelli 2 (Letters to Mr. Schact regarding the Boarhead Site) (exhibit from Santarelli Deposition). February 22, 2005. AGER000040-AGER 000059

Western Electric, 1970. Contracts and purchase price negotiations via letters for Echo to purchase Western Electric's waste products and haul off in tank trucks. 1960's and 1970's. (BSAI 011485 - BSAI 011558)

Western Electric, 1996. Western Electric Compnay's (c/o AT&T Corp) 104(e) response. May 22, 1996. (BSAI000643-BSAI000644)

Weston, S. 1989, Memo to Marty Powell Re: Onsite sampling trip 6/2/89. July 12, 1989. (PHKS2038- PHKS2048)

Wolberg and Sayles, undated. Response to EPA questions by Leonard Wolberg and Leonard Sayles

American Cyanamid, 1976. Series of shipping documents from the Bound Brook NJ facility (Bates numbered BQ0104-150), indicating Jonas Waste Removal of Sewell NJ as hauler.

American Cyanamid Company, 1988. Response to USEPA June 10, 1988 correspondence. July 13, 1988.

American Cyanamid Company, 1993. Response to USEPA May 26, 1993 correspondence. Includes attachments. July 2, 1993.

Cytec, 1994. Response to USEPA March 11, 1994 correspondence. Includes attachments. April 28, 1994.

Frankel, Sydney A., 1991. Oral Deposition in the matter of United States of America v. Helen Kramer et. al., Civil Action Nos. 89-4340, 89-4380. February 27, 1991.

Frankel, Sydney A. 1994. Statement and transcript of September 28, 1993 Interview with Sidney A. Frankel. January 3, 1994.

Frankel, Sydney A., 2005. Oral Deposition in the matter of Boarhead Farms Agreement Group v. AETC et. al., Civil Action No. 02-3830. January 24, 2005.

USEPA, 2006. American Cyanamid, New Jersey, EPA ID#: NJD002173276, Site Details. March 21, 2006.

Series of National Rolling Mills bills of lading, from 1975 (no Bates #s).

Ford Motor Company, 1992. Response to USEPA's September 30, 1992 request for information. FORD000014-21.

Ford Motor Company, 1994. Response to USEPA April 12, 1994 request for information. June 14, 1994. Attachments. BSAI000137-493.

Ford Motor Company, 1996. Response to USEPA November 28, 1995 Information Request. January 31, 1996. FORD000518-524.

USEPA, 1992. Information Request Letter to Ford Motor Company, re Boarhead Farms Site. September 30, 1992. With enclosures. FORD000001-13.

USEPA, 1994a. Memo to File, Subject Boarhead Farms – Philco Ford Waste. March 30, 1994. BSAI005378-80.

USEPA, 1994b. Information request letter to Ford Motor Company, re Boarhead Farms Site. April 12, 1994. With enclosures. FORD000022-135.

USEPA, 1995. Information request letter to Ford Motor Company, re Boarhead Farms Site. November 28, 1995. FORD000495-516.

SPS Technologies, 1988. Response to USEPA June 10, 1988 letter request. June 23, 1988. SPST00001-SPST00088.

SPS Technologies, 1992. Response to USEPA September 30, 1992 letter request. November 3, 1992. SPST00089-SPST00176.

SPS Technologies, 1996. Response to USEPA November 5, 1995 letter request. February 5, 1996. SPST00177-SPST00396.

USEPA, 1992. Letter to Standard Pressed Steel Technologies, with attachments. September 30, 1992. BSAI035101-BSAI035108.

USEPA, 1995. Letter to Standard Pressed Steel Technologies, with attachments. November 8, 1995. BSAI035084-BSAI035094.

AT&T, 1988. Correspondence to Ms. Suzanne Billings, USEPA, re Boarhead Farms Site. June 23, 1988. AGER000001-000005.

AT&T Technology Systems, June 15, 1987. Internal Memo from C.L. Fraust, Re: Jonas Waste Removal, with attachments. BSAI31233-49.

Legrome D. Davis. (2 Pages, transmitting Agere's CERCLA 104(e) responses AGER000001 through AGER000120). Undated.

Lucent Technologies July 25, 1997 correspondence to USEPA, includes May 14, 1973 Western Electric correspondence to Commonwealth of PADER. BSAI0131216 – 312120.

Deposition of Marianne Santarelli, February 22, 2005, including the following exhibits: Santarelli 2 – USEPA, March 19, 1997, Correspondence to Western Electric Company c/o Lucent Technologies. AGER000040-000059.

Santarelli 3 – Lucent Technologies, May 9, 1997, Correspondence to USEPA. AGER000060 – 000068.

Santarelli 4 – Western Electric, September 30, 1976, Space Report Allentown Works. BSAI070641 – BSAI070661.

Santarelli 5 – Lucent Technologies, May 29, 1997, Correspondence to USEPA, AGER000069 – 0000118.

Santarelli 6 – AT&T, February 1, 1996 Correspondence to USEPA and USEPA, November 8, 1995, Correspondence to AT&T c/o Western Electric (Greensboro, NC), AGER000006 – 000039; and

Santarelli 7 – 1971 Western Electric/AT&T report on waste disposal for Allentown Works (no Bates #s).

CH2MHill, 1997. Final Remedial Investigation Report, Volume I, prepared for USEPA under Contract No. 68-W-0090. January 31, 1997.

NUS Corporation, 1986. Site Inspection of Boarhead Farms Prepared Under TDD No. F3-8304-25, EPA No. PA-257, Contract No. 68-01-6699 for the Hazardous Site Control Division, U.S. Environmental Protection Agency, January 20, 1986. AR100173-256.

TetraTech/Black & Veatch, 2004. Remedial Action Oversight Report, Boarhead Farms Superfund Site, Operable Unit #2, Upper Black Eddy, Bucks County, Pennsylvania. June 25, 2004.

USEPA, 1998a. Proposed Plan: Boarhead Farms Site, Bridgeton Township Bucks County, Pennsylvania. January 1998,
<http://www.epa.gov/reg3hwmd/super/sites/PAD47726161/proposed/1998-01.htm>:

USEPA, 1998b. Record of Decision: Boarhead Farms EPA ID: PAD047726161, OU1, Bridgeton Township, PA. November 18, 1998.
<http://www.epa.gov/superfund/sites/rods/fulltext/r0399009.pdf>

USEPA website, 2004. Boarhead Farms Current Site Information. Last update: January 2004.
<http://www.epa.gov/reg3hwmd/npl/PAD047726161.htm>

1975-1976 Chemical Leaman and Matlck shipping documents, BSAI00186-2321.

Bostik South documents, BSAI012996 – BSAI013002.

Ciba-Geigy shipping records, 1976-1977. BSAI026638-745, BSAI004078 – 253.

Ciba-Geigy, Vendor Value Listings 1974-1975. BSAI004046 – 77.

Ciba-Geigy, 1988. Response letter to USEPA June 10, 1988 request for information. July 25, 1988. BSAI004015-20.

Ciba Specialty Chemicals Corporation, 1997. Response to USEPA March 19, 1997 letter. March 24, 1977. BSAI026746.

USEPA, 1997. Request for information letter to Ciba Geigy Corporation, March 19, 1997. BSAI026749-769.

McNees, Wallace & Nurick, 2003. Correspondence to Glenn A. Harris, Esq., Re: Boarhead Farms Agreement Group V. Advanced Environmental Technology Corporation, et al., Civil Action No. 02-CV-3830 (J. Davis) – Information Disclosure on Behalf of Knoll, Inc. under February 3, 2002 Case Management Order. March 17, 2003.

Plymouth Tube Co., 1988. Correspondences to USEPA re Boarhead Farms Site. June 22, 1988, October 25, 1988. (BSAI000361, BSAI000358).

Copies of historical documents related to DeRewal Chemical Co. and Plymouth Tube Co. BSAI013067-079, BSAI052293 – 302, BSAI1020570, BSAI052294.

DeRewal Chemical Company, 1973. Invoice to Quickline Design, Inc. BSAI032908.

DeRewal Chemical Company, 1973. Copy of correspondence to F. Marchewka of Quickline Design, Inc. March 2, 1973. BSAI016524.

Rohm and Haas Company, 2003. Initial Disclosure pursuant to February 3, 2003 Case Management Order, in the matter of BFAG v. AETC. March 19, 2003.

Document Submission of Defendant Unisys Corporation pursuant to Case Management Order of February 3, 2003. UNIS-0001 through UNIS-0020.

Unisys, 1992. Correspondence to USEPA, Re: Boarhead Farms Site. November 12, 1992. PHKS027487-92.

Unisys, 1988. Correspondence to USEPA, Re: Boarhead Farms Site. July 19, 1988. BSAI001847-52.

D-18: City of Philadelphia Water Department correspondence to Manfred DeRewal, July 5, 1978. PKS003404 7.

P-5: Commonwealth of Pennsylvania, Certificate of Incorporation, Boarhead Corporation. September 2, 1969. BSAI047227-9.

P-6: Indenture between Alan R. Reim, Gail D. Reim, Robert W. Buckman, Ruth J. Buckman and Boarhead Corporation, for sale of land in Bridgeton Township, Bucks County PA to Boarhead Corporation. October 16, 1969. BSAI000428.

P-7: Commonwealth of Pennsylvania, Certificate of Incorporation, DeRewal Chemical Company, Inc., December 29, 1969. BSAI047244.

P-20: Lease Agreement between Philadelphia Hide Corporation and Manfred DeRewal, December 1, 1973, PHKS003410.

P-21: DeRewal Chemical Company correspondence to Manfred F. DeRewal, July 23, 1970. AETC78.

P-22: Pennsylvania Department of Environmental Resources Waste Discharge Inspection report, Boarhead Corporation, Lonely Cottage Road, Bucks County, Bridgeton Twp., February 14, 1973.

P-23: Pennsylvania Department of Environmental Resources Waste Discharge Inspection Report, Boarhead Corporation, March 5, 1973 inspection.

P-24: Agreement between Pennsylvania Department of Environmental Resources and Boarhead Corporation, March 21, 1973. BSAI017233-4.

P-25: City of Philadelphia Water Dept. correspondence to Manfred DeRewal, September 24, 1974. PHKS003282-4.

P-26: City of Philadelphia correspondence to Manfred DeRewal, June 2, 1975.

P-27: Environmental Chemical Control certificate of incorporation, October 18, 1976. BSAI047236.

P-28: City of Philadelphia Dept. of Licenses and Inspections Violation Notice issued to Ed Meliti & Linda Cochran regarding 5001 Comly Street (Bldg R), April 5, 1977. PHKS003286-7.

P-29: City of Philadelphia v. Wissonoming Industrial Park et al. Agreement, May 12, 1977. BSAI019670-1.

The foregoing is exclusive of any unauthenticated Jonas records other than bills of lading by NRM to Jonas.

(v) Listed by Ashland: (Not numbered)

Boarhead Exhibits

I. Background of Site Exhibits

CH2MHill, 1997. Final Remedial Investigation Report prepared for USEPA under Contract No, 68-W-0090. January 31, 1997.

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USEPA, 1987. NPL Site Narrative for Revere Chemical Co.

U.S. Environmental Protection Agency (USEPA), 1989. Record of Decision: DeRewal Chemical Co. EPA ID: NJD980761373, OU1, Kingwood Township, NJ. September 29, 1989. EPA/ROD/R02-89-087 1989.

USEPA, 1998a. Proposed Plan: Boarhead Farms Site, Bridgeton Township Bucks County, PA. January 1998,
<http://www.epa.gov/reg3hwmd/super/sites/PAD047726161/proposed/1998-01.htm>

USEPA, 1998b. Record of Decision: Boarhead Farms EPA ID: PAD047726161, OUI, Bridgeton Township, PA. November 18, 1998.

USEPA, 1996. Record of Decision: Revere Chemical Co., EPA ID: PADO51395499, OU2, Nockamixon Township, PA. June 20, 1996.

OU-2 Consent Decree

USEPA, 2001. Five-Year Review Report, Revere Chemical Co. Superfund Site.

Armstrong, D.A. 2001. Letter to J.P. Harper re: Boarhead Farms NPL Site OU-1, with attachment. June 21.

Betz Environmental Engineers. 1974. Letter Report, DeRewal Chemical Co. Inc., Boarhead Corporation (00-4671-01), July.

Brown and Caldwell. 2004a. Remedial Construction Report, Operable Unit No. 2, Boarhead Farms Superfund Site. May.

Brown and Caldwell. 2004b. Boarhead Farms Superfund Site, Operable Unit No. 1, Groundwater Model Report (Draft). October.

BCDH. 1978. Correspondence regarding proposed Pollution Incident Prevention ("PIP") plan dated July 25, 1978, with attached PIP dated June 22, 1978.

CH2M HILL. RI/FS Work Plan August 1991 (AR 300083- 300305)

CH2M HILL. 1992. June 25, 1992 CH2M Hill Summary of Tank and Drum Inventory and Sampling.

CH2M HILL. 1997a. Boarhead Farms Remedial Investigation Report. January.

CH2M HILL. 1997b. Boarhead Farms Feasibility Study Report. July.

Chocallo, C.P. 1972. General Investigation Report. 26 April.

EPA. 1988. Residential Sampling and Analysis Plan for Boarhead Farms, PA-257. November 17.

EPA. 1993. Federal On-Scene Coordinator's Report for Boarhead Farms NPL Site. June 18, 1992 to September 17, 1993.

EPA. 1994. Natural Attenuation of Hexavalent Chromium in Groundwater and Soils. (authors C.D. Palmer and R.W. Puls). EPA Report No. EPA/540/5-94/505. October.

EPA. 1995a. Boarhead Farms Superfund Site Engineering Evaluation/Cost Analysis. June.

EPA. 1995b. EPA Office of Compliance Sector Notebook Project, Profile of Fabricated Metal Products Industry. EPA Office of Enforcement and Compliance Assurance. EPA Report No. EPA/310-R-95-007. September.

EPA. 1996. International Waste Minimization Approaches and Policies to Metal Plating. EPA Office of Solid Waste. EPA Publication No. 530-R-96-008.

EPA. 1998a. Superfund Program Proposed Plan, Boarhead Farms site. January.

EPA. 2004a. Remedial Construction Report, Operable Unit No, 2, Boarhead Farms Superfund Site. May.

EPA. 2004b. Boarhead Farms. Current Site Information. January.

EPA. 2004c. Understanding Variation in Partition Coefficient, Kd, Values, Volume 111. EPA 402-R-04-002C. July.

EPA. 2006a. Contaminant Focus, Arsenic. EPA Clu-In Website.

EPA. 2006b. Contaminant Focus, Chromium VI. EPA Clu-In Website.

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System Discharge. November 4.

Harbold, H. 1994. Letter to S. O'Neil, re: Boarhead Farms Superfund Site, Temporary Discharge Approval, with attachments. March 28.

Krupka, K.M. and R.J. Serne. 2002. Geochemical Factors Affecting the Behavior of Antimony, Cobalt, Europium, Technetium, and Uranium in Vadose Sediments. PNNL-14126. December.

Lapsley, J., Jr. 1976. Complaint/Information Report. 09-08-76.

Lynn, W.L., D. Lindorff, and J.F. Dwalinski. 1973. Memo re: Inspection of Revere Chemical Corp. facility in Bridgetown Township. March 12.

2001. DEP Permit Revision, June 22, 2001.

Boarhead Farm Superfund Site Operable Unit No. 1 Groundwater Model Report, 10/2004 (PHKS061239-061300)

PADEP revised permit equivalent for the Boarhead Farm Site Groundwater Treatment Plant Discharge, dated 6/21/01 (BSAI 025758-25785)

EPA March 28, 1994 letter from Harry Harbold to Steve O'Neill, PADER with attachments (AR3050520-6063)

EPA memorandum dated 11/3/95 from Robert S. Davis to Harry S. Harbold (AR308501-504)

Noll, P. and B. Passmore. 1973. Inspection of Boarhead Corp. on 2-14-73.

NUS Corporation. 1985: Preliminary Assessment of Boarhead Farms. August.

NUS Corporation. 1986. Site Inspection of Boar head Farms. January.

NUS Corporation. 1987. A Hazard Ranking System for Boarhead Farms. September 4.

October 26, 1976 list of chemicals transported by DeRewal Chemical Company.

PADER. 1970. Results of Field Inspection, Boarhead Corporation, A.W. Wills. May 11.

PADER. 1973a. Waste Discharge Inspection Report, A.W. Wills, 11/11/03.

PADER. 1973b. Industrial Wastes, Boarhead Corporation, A.W. Wills. March 7.

PADER. 1973c. Industrial Waste Violation, Boarhead Corporation, A.W. Wills. November 1.

Roy F. Weston. 1989. Water Sampling Results.

Tetra Tech/Black & Veatch. 2004. Remedial Action Oversight Report. Boarhead Farms Superfund Site, Operable Unit #2. June 25, 2004.

US Army Corps of Engineers. 1996. Boarhead Farms Superfund Site Groundwater Treatment Plant, Rapid Response Design Package. June.

Weston SPER. 1984. Memo from C. Hylemon to B. Caron, re: Boarhead Farms Superfund Site Assessment, with attachments. April 27.

Injunctive order issued by BCCP (No. 76-9647), 10/15/76

Letter from City of Philadelphia to DCC regarding unpaid sewer charges for illegal dumping from the Wissinoming Facility, 7/5/78

Photographs taken by Peter G. Noll of the Bucks County DOH (5/29/75, 2/26/75, 4/2/76 and 9/23/76)

Memorandum dated 5/11/70 from Albert W. Willis, P.E., chief sanitary engineer to Charles M. Meredith, III, Bucks County Commissioner

5/11/70 memorandum from Robert A. Delpino to Charles M. Meredith, III, County Commissioner

Waste Discharge Inspection Report dated 2/14/73 and notes of Peter Noll and B. Passmore

Complaint for search warrant 3/5/73

Waste Discharge Inspection Report; Water or Waste Quality Reports; Memorandum from A. Wills to C.T. Beechwood dated 3/7/73

PADER memo dated 3/12/73; handwritten note dated 3/12/73; photographs

3/20/73 - Photographs taken at Boarhead site.

3/24/73 - Photographs taken at Boarhead site.

10/31/73 - Waste Discharge Inspection Report, Memorandum from A. Wills to J. Daley (PADER), dated 11/1/73, handwritten file memo by P. Noll).

11/1/73 -Waste Discharge Inspection Report).

11/9/73 -Waste Discharge Inspection Report).

1/23/74 - Waste Discharge Inspection Report. Photographs taken at site.

4/17/74 - Field Action Report

4/25/74 - Waste Discharge Inspection Report; P.G. Noll sampling. Photographs taken at site.

Betz Environmental Engineers letters dated 7/29/74, 8/12/74, 8/14/74, 8/20/74, 8/28/74, 9/3/74, 9/20/74, 10/9/74 and 10/22/74.

2/26/75 - Waste Discharge Inspection Report; handwritten file memorandum. Photographs taken at site.

5/29/75 -Waste Discharge Inspection Report. Photographs taken at site.

7/1/75 - Manfred DeRewal letter to Dept. of Health dated 7/1/75

7/15/75 - Waste Discharge Inspection Report; handwritten notes. Photographs taken at site.

7/16/75 -Waste Discharge Inspection Report; BCDH Field Action Report).

4/1/76 B Waste Discharge Inspection Report

4/2/76 B Waste Discharge Inspection Report). Photographs taken at site.

5/4/76 - Photographs taken at Boarhead site

6/2/76 B Waste Discharge Inspection Report

7/22/76 B Bridgeton Township Police Report with American Cyanamid Bill of Lading attached

7/25/76 - Bridgeton Township Police Complaint/Information

7/27/76 B Bridgeton Township Complaint/Information Report; PADER Field Action Report

9/8/76 - Waste Discharge Inspection Report;

Bridgeton Township Police Complaint/Inspection Report; photographs identified as B 76-871;

E. Hogg memorandum to file dated 9/10/76

Bucks Co. Fire Marshal's Initial Report of 9/9/76;

Newspaper article showing tanker; Water or Waste Quality Report).

9/9/76 - E. Hogg memorandum to file dated 9/10/76

Handwritten notes of P. Noll, dated 9/9/76).

9/23/76 - Waste Discharge Inspection Report, P. Noll memorandum and letter on sampling dated 11/1/76. Photographs taken at site.

10/1/76 - PADER P. Yangla memorandum to S. Currant.

10/15/76 B Agreed Injunction Order

10/19/76 -Waste Discharge Inspection Report; P.G. Noll Handwritten notes).

10/26/76 - List of chemicals transported by DeRewal Chemical Co. prepared, apparently by PennDot. (Typewritten and handwritten list received by BCDH on 10/26/76).

11/4/76 - Waste Discharge Inspection Report

4/12/77 B Waste Discharge Inspection Report

1/17/80 - BCDH File Report

12/22/80 - BCDH Field Report dated 1/17/80

7/22/81 - BCDH File Report

5/25/83 - Waste Discharge Inspection Report

12/1/83 - Waste Discharge Inspection Report

4/18/84 - BCDH File Report

3/14/85 - Waste Discharge Inspection Report

Intelligencer newspaper photo, September 1976

Boarhead Corporation Certificate of Incorporation dated September 2, 1969 [P-5]

Deed Between Robert and Ruth Buckman and Boarhead Corporation dated October 16, 1969 [P-6]

DeRewal Chemical Company, Inc. Certificate of Incorporation dated December 29, 1969 [P-7]

Bench opinion filed May 16, 1978 in United States v. Manfred DeRewal, et al. in the United States District Court for the Eastern District of Pennsylvania at Docket No. 77-287

Environmental Chemical Control, Inc. Certificate of Incorporation dated October 18, 1976 [P-27]

II. Exhibits re: Plaintiffs

A. Cytec (American Cyanamid)

American Cyanamid, 1976. Series of shipping documents from the Bound Brook NJ facility (Bates numbered BQ 0104-150)

American Cyanamid Company, 1988. Response to USEPA June 10, 1988 correspondence. July 13, 1988.

American Cyanamid Company, 1993. Response to USEPA May 26, 1993 correspondence. Includes attachments. July 2, 1993.

Bailey, Robert E., 1990. Oral Deposition in the matter of United States of America v. Helen Kramer, et. al., Civil Action No. 89-4380. August 14, 1990. Includes Exhibit Bailey-3.

Cytec, 1994. Response to USEPA March 11, 1994 correspondence. Includes attachments. April 28, 1994.

Frankel, Sydney A., 1991. Oral Deposition in the matter of United States of America v. Helen Kramer et. al., Civil Action Nos. 89-4340, 89-4380. February 27, 1991.

Frankel, Sydney A. 1994. Statement and transcript of September 28, 1993 Interview with Sidney A. Frankel. January 3, 1994.

Frankel, Sydney A., 2005. Oral Deposition in the matter of Boarhead Farms Agreement Group v. AETC et. al., Civil Action No. 02-3830. January 24, 2005.

Jerome, Joel, 2005. Oral Deposition in the matter of Boarhead Farms Agreement Group v AETC et. al., Civil Action No. 02-CV-3830. January 6, 2005.

Jonas, 1972. Application for Certification to Collect or Haul Solid Waste (Exhibit Jonas 20, 6-22-95).

Jonas, 1974. Registration Statement for a Solid/Liquid Waste Collector or Hauler.

Jonas, 1975. Registration Statement for a Solid/Liquid Waste Collector or Hauler.

Jonas, Inc. 1975. Correspondence to NJDEP re coding of materials, landfills and recycling plants. February 18, 1975 (labeled as Exhibit Jonas 14, 6/21/1995).

Jonas 3-ring binder ledger pages, 1976-1979, Bates #00000020-00000050.

USEPA, 2006. American Cyanamid, New Jersey, EPA ID#: NJD002173276, Site Details. March 21, 2006.

“Chart Disposal of Wastes - Bound Brook” attached to S.A. Frankel December 15, 1977 Memorandum (marked as Exhibit Jerome - 3).

26 bills of lading for waste ammonia water signed John Barsum, Ed Long, Bruce DeRewal (known DeRewal drivers) and others (BQ, 105-0111, 0114, 0115-0116, 0121-0122, 0125-0128, 0130, 0132-0135, 0138, 0143, 0145-0146) (collectively marked as Exhibit Jerome 4).

December 15, 1977 letter from Sidney Frankel to Jonas with list of wastes (marked as Exhibit Bailey 4 and Frankel 5 (2001 deposition) and Frankel 4 (2005 dep.)).

Exhibit A - handwritten “Summary of Waste Shipments” made by Bound Brook Plant via Jonas 1976-78 - (summary marked Frankel Exhibit 1 contains information for 1977 only, complete version marked as Exhibit Bailey 3).

Jonas tariff for solid waste collection 4/19/72 (marked as Exhibit Jonas-9, 6/20/95).

Jonas 1975 Registration statement for solid/liquid waste collect or haul (marked as Exhibit Jonas -12 (6/21/95); another version marked as Jonas -13 (6/21/95))

American Cyanamid “Blanket MSO” issued to Jonas, Inc. for 1976 “to cover the shipment of aqueous base chemical waste - 4160 from our 4-NOX Process” (BQ 0103) (marked as Exhibit Jerome-7)

American Cyanamid’s internal memorandum of April 9, 1976, Pharmacy Process, stating that Jonas accepted PCIC waste liquors (potassium Cyanodithioimino carbate) for incineration.

Jonas proposal of May 27, 1976 to American Cyanamid to haul waste drums.

Jonas letter to American Cyanamid of December 9, 1976 that it needs to raise rates on waste tar and waste solvents but not on ammonia and “4160” waste.

Documents marked as Jonas 3-Ring Binder Pages used by EPA with notation “American Cyanamid”

Handwritten ledger titled “American Cyanamid, Bound Brook, NJ - showing disposal of material starting 6/21

Handwritten list American Cyanamid material and disposal site 1976

Handwritten list of ammonia shipment and destinations in 1976

Handwritten list of waste acid shipments and destination in 1976

Handwritten list of waste caustic shipments destination in 1976

American Cyanamid “Blanket order to pick up and remove as required ____?____ mixed waste” in 1977 issued to Jonas, Inc. (BQ 0085-86) (marked as Exhibit Bailey 5 and Frankel 3).

Handwritten chart indicates Jonas pick up on October 7, 1977 of various wastes, indicating sources of manufacturing process.

December 15, 1977 letter from Sidney Frankel to Jonas with list of wastes (marked as Exhibit Bailey 4 and Frankel 5 and Frankel 4 (2005 dep.)).

Handwritten list of 1977 American Cyanamid Bound Brook, NJ material and disposal sites.

“Blanket MSO” to “pick-up and remove drummed mixed waste” in 1978 issued to Jonas Inc. (marked as Exhibit Bailey 6 and Frankel 7 (1991 dep.) and Frankel 5 (2005 dep.)

Jonas 1978 NJDEP Registration Statement (marked as Exhibit Jonas - 11, 6/21/95)

Handwritten list of 1979 American Cyanamid, Bound Brook, NJ material and disposal site.

Jonas Waste Removal Bills of Lading

9 for waste solvents signed by various Jonas agents (BQ 0114, 0017-0119, 0123-0124, 0136, 0147-0148) (collectively marked as Exhibit Jerome 5 and two additional not marked (BQ 0144 and 0149);

3 for waste still bottoms signed by _____?_____ (BQ 0139, 0141-0142) (collectively marked as Exhibit Jerome 6);

26 documents for waste ammonia water signed John Barsum, Ed Long, Bruce DeRewal (known DeRewal drivers) and others (BO, 105-0111, 0114, 0115-0116, 0121-0122, 0125-0128, 0130, 0132-0135, 0138, 0143, 0145-0146) (collectively marked as Exhibit Jerome 4);

1 for “Isopropanol (alcohol waste) (BQ 0137) (marked as Exhibit Jerome 8);

6 for waste tar (BQ 0112, 00120, 0129, 0131, 0140, 0150) (collectively marked as Exhibit Jerome 9);

1 unreadable (BQ 104)

American Cyanamid July 13, 1988 response to EPA request of June 10, 1988.

American Cyanamid June 9, 1978 Certification to N.J. Division of Motor Vehicles that Jonas providing chemical waste removal since 1972. (marked as Exhibit Frankel 9 at 1991 dep. and Frankel 6 at 2005 dep.)

Jonas June 6, 1972 Application for Certification to collect or haul solid waste (marked as Exhibit Jonas 20).

Jonas 1974 N.J. Department Registration Statement for a solid/liquid waste collection or hauler (marked as Exhibit Jonas -15, 6/21/95; different version marked as Exhibit Jonas -16, 6/21/95)

Jonas handwritten ledger of waste disposal for 1974 (marked as Exhibit 2/18/75 in Kramer Federal litigation and as Jonas 14 in 6/21/95 deposition in Lipari litigation)

Jonas February 18, 1975 Landfill Sites - Coding (marked as Exhibit Jonas -14, 6/21/95)

Jonas handwritten ledger of waste disposal for 1974 (marked as Exhibit 2/18/75 in Kramer Federal litigation)

Jonas February 18, 1975 Landfill Sites - Coding (marked as Exhibit Jonas -14, 6/21/95)

Jonas 1978 NJDEP Registration Statement (marked as Exhibit Jonas -11, 6/21/95)

Documents marked as Jonas 3-Ring Binder Pages used by EPA with notation "American Cyanamid"

EPA Interview of Norman Westerman, September 29, 1993

Cytec August 15, 1994 Response to EPA (CYTC000777-783)

MSDSs identified as part of attachments 1 and 2 (CYTC002605-2612)

Pharmaceuticals and Effluent Plant, December 1981; (CYTC001146-1322)

Boundbrook Plant, Process description and process flow charts of major OCD products, October 1980 (CYTC001323-1407)

Massachusetts Institute of Technology Report Number D-74-107 Aniline Removal from DPA Ammonia Stream (CYTC001884-1934)

Massachusetts Institute of Technology Report Number D-75-111 Aniline Removal from DPA Ammonia Stream - II (CYTC001935-1970)

Untitled Boarhead Farm Site Bridgeton Township, PA (CYTC002154-2156)

June 10, 1993 Memorandum from NA Weston to RB Tabakin with attachment (CYTC002146-2147)

B. National Rolling Mills

Boarhead Farms Agreement Group, undated, Initial Disclosures, for TI Group Automotive Systems, in the matter of BFAG v. AETC, Civil Action #02-CV-3830.

Series of National Rolling Mills bills of lading, from 1975 (no Bates #s).

C. Ford Motor Company

Ford Motor Company, 1992. Response to USEPA's September 30, 1992 request for information. FORD000014-21.

Ford Motor Company, 1994. Response to USEPA April 12, 1994 request for information. June 14, 1994. Attachments. BSAI000137-493.

Ford Motor Company, 1996. Response to USEPA November 28, 1995 Information Request. January 31, 1996. FORD000518-524.

USEPA, 1992. Information Request Letter to Ford Motor Company, re Boarhead Farms Site. September 30, 1992. With enclosures. FORD000001-13.

USEPA, 1994a. Memo to File, Subject Boarhead Fanns - Philco Ford Waste. March 30, 1994. BSAI005378-80.

USEPA, 1994b. Information request letter to Ford Motor Company, re Boarhead Farms Site. April 12, 1994. With enclosures. F0RD000022-135.

USEPA, 1995. Information request letter to Ford Motor Company, re Boarhead Farms Site. November 28, 1995. F0RD000495-516.

Photo # 0029, Philco Ford Corp. reverse label dated August 6, 2003 (BSAI 062218 Reverse side)

Drawing of label, drum and drum fragments of HP Fuller Resiweld epoxy with Philco Ford stamp on the label (BSAI 062223)

Photographs of HP Fuller drums with Philco Ford stamp referenced at BSAI 062223)(BSAI 062229-062231)

Tetra Tech Log referencing discovery of four labels from drum carcasses of the HP Fuller epoxy with Philco Ford stamp (BSAI 062255 Reverse side)

January 21, 1972, DeRewal proposal to dispose of Philco Ford Watontown Plant “liquid waste solution” (BSAI 006257)

3/27/72 - DeRewal invoice 395 (BSAI 006103)

7/14/72 - DeRewal invoice 448 (BSAI 006155)

8/17/72 - DeRewal invoice 469 (BSAI 006105)

2/12/73 - Philco Ford Purchase Order 24298 (BSAI 006106)

Philco Ford Purchase Order 24441) (BSAI 006254)

4/12/73 - Philco Ford Invoice No. 72343

4/24/73 - Philco Ford Invoice No. 72405 (BSAI 006166)

5/1/73 - Philco Ford Invoice No. 72570 (BSAI 006264)

10/31/73 - (DeRewal Invoice No. 746 (BSAI 006260)

Handwritten document identifies the drums by number and the pit in which they were found. (BSAI 006208-6209).

Weston Log Books: Log Book I (PHKS 049347-049450) (6/18/92-8/24/92); Log Book II (PHKS 049451-049553) (8/13/92-10/26/92) Log Book III (PHKS 049554-049709) (5/27/93-1/19/95).

Chem Met Services, Inc. Generator Waste Analysis form (BSAI 006114, 006192-6200).

Composite laboratory report (BSAI 006193-6197)

Composite laboratory report (BSAI 006202-6206, 6111-6212)

Chem Met Generator Waste Analysis form (BSAI 006201)

Uniform Hazardous Waste Manifest (BSAI 006100-6101)

BSAI 062218 (Reverse side)

Photo # 00031A

Tetra-Tech Report (BSAI 062222).

Excavated Drum Inventory (BSAI 08212).

Analysis (BSAI 059605-9609)

Waste Characterization Report (BSAI 059602).

BSAI 062229-062231 (Photographs of HP Fuller drums with Philco Ford stamp referenced at BSAI 062223)

BSAI 062255 (Reverse side) (Tetra Tech Log referencing discovery of four labels from drum carcasses of the HP Fuller epoxy with Philco Ford stamp)

BSAI 06221

BSAI 83716

Boarhead Farms OU-2 Group Excavated Drum Inventory (BSAI 082150-082156)

EPA memorandum to file dated 3/30/94 reporting a conversation with Ford's General Counsel. (BSAI 005378-5379)

Stock sale agreement. (BSAI 03003-030094)

Exhibit-10 at Barsum's deposition. (BSAI 034631)

Loral letter to EPA dated April 4, 1984(BSAI 035134).

U.S. EPA's September 30, 1992 Information Request (FORD000001-FORD000012)

Ford's Response dated November 24, 1992 (FORD000013-FORD000021)

U.S. EPA's April 12, 1994 Information Request (FORD000022-FORD000135)

Ford's Response dated June 14, 1994 (FORD000136-FORD000493)

U.S. EPA's November 28, 1995 Information Request (FORD000494-FORD000516)

Ford's Response dated January 31, 1996 (FORD000517-FORD000525)

D. Standard Pressed Steel (SPS)

Shea, Dennis, 2005. Oral Deposition in Boarhead Farms Agreement Group vs. Advanced Environmental Technology Corporation et. al., Civil Action No. 02-CV-3830. February 9, 2005.

SPS Technologies, 1988. Response to USEPA June 10, 1988 letter request. June 23, 1988. SPST00001-SPST00088.

SPS Technologies, 1992. Response to USEPA September 30, 1992 letter request. November 3, 1992. SPST00089-SPST00176.

SPS Technologies, 1996. Response to USEPA November 5, 1995 letter request. February 5, 1996. SPST00177 – SPST00396.

Stewart, David, 2000. Deposition in Luis Silva and Iolanda Silva v. Arco Petroleum Products et.al. January 6, 2000.

Stewart, David, 2005. Deposition in Boarhead Farms Agreement Group vs. Advanced Environmental Technology Corporation et. al., Civil Action No. 02-CV-3830. January 10, 2005. With Exhibits 1 through 14.

USEPA, 1992. Letter to Standard Pressed Steel Technologies, with attachments. September 30, 1992. BSAI035101 – BSAI035108.

USEPA, 1995. Letter to Standard Pressed Steel Technologies, with attachments. November 8, 1995. BSAI035084 - BSAI035094.

E. Agere (Western Electric)

AT&T, 1988. Correspondence to Ms. Suzanne Billings, USEPA, re Boarhead Farms Site. June 23, 1988. (AGER000001-000005)

AT&T Technology Systems, June 15, 1987. Internal Memo from C.L. Fraust, Re: Jonas Waste Removal, with attachments (BSAI31233-49)

Initial Disclosures, BOARHEAD FARM AGREEMENT GROUP plaintiff v. ADVANCED ENVIRONMENTAL TECHNOLOGY

CORPORATON ET AL., Defendants, Civil Action 02-CV-3820, (AGER000001 through AGER000120). Undated.

Lucent Technologies July 25, 1997 correspondence to USEPA, includes May 14, 1973 Western Electric correspondence to Commonwealth of PADER. (BSAI0131216-312120)

Deposition of Marianne Santarelli, February 22, 2005, including the following exhibits:

Santarelli 2 - USEPA, March 19, 1997, Correspondence to Western Electric Company c/o Lucent Technologies. AGER000040-000059.

Santarelli 3 - Lucent Technologies, May 9, 1997, Correspondence to USEPA. AGER000060-000068.

Santarelli 4 - Western Electric, September 30, 1976, Space Report Allentown Works. BSAI070641-BSAI070661.

Santarelli 5 - Lucent Technologies, May 29, 1997, Correspondence to USEPA, AGER000069-0000118.

Santarelli 6 - AT&T, February 1, 1996 Correspondence to USEPA and USEPA, November 8, 1995, Correspondence to AT&T c/o Western Electric (Greensboro, NC), AGER000006-000039; and

Santarelli 7 - 1971 Western Electric/AT&T report on waste disposal for Allentown Works. (no Bates #s)

Documents Relating to Sylvan Chemical Corporation (BSAI1016598-16677)

Agere CERCLA 104(e) response to June 10, 1988 request (AGER000001-000005)

Agere CERCLA 104(e) response to November 8, 1995 request (AGER000006-000039)

Agere CERCLA 104(e) response to March 19, 1997 request
(AGER000040-000120)

Boarhead Farms Settlement Agreement by and between Certain Plaintiff Settling Parties and Agere Systems Inc. (BSAI102980-102993)

III. Plaintiffs' Payment of Response Costs

Plaintiffs' Amended and Supplemental Responses to Contention Interrogatories

BFAG Agreements

Sandy Purrington e-mail(PHKS 073639-073640)

“Agreement in Principle” (PHKS 071738- PHKS 071747).

Boarhead Farm Site PRP Group Organization Agreement (PHKS 071667-071680) also BSAI075568-75587

Environmental Remediation Trust Agreement for Operable Unit 1
PHKS 070841-070865. (PHKS 061072-061077).

Signature pages for Cytech (PHKS 071624) which is attached to a Cytech letter dated January 15, 2002 (PHKS 071622), Agere (PHKS 071638-071639), Ford (PHKS 071640) and SPS (PHKS 071642-017643).

Agreement with Bigler Associates, Inc. (“Contractor”) (PHKS 071575 - 071588) (PHKS 071589-071593).

Lucent (7/27/2000) (PHKS 071837)
Cytech (again) (6/27/00) (PHKS 071837)
SPS (4/12/00 and 7/7/00) (PHKS 071838-071839,
071847-01849)
Ford (3/10/00 and 6/28/00) (PHKS 071843-071846)
NRM Investment Co. (4/18/00) (PHKS 071850)

Draft OU-2 Group Organization Agreement (PHKS 074286-074299)

Letter from Agere dated May 31, 2001

Letter from John Judge dated June 13, 2001

Separation and Distribution Agreement by and between Lucent Technologies, Inc. and Agere Systems, Inc., dated 2/1/01

U.S. EPA Removal Actions and Costs

November, 2000 updated cost report for BF Site. (BSAI 082007-082318)

EPA collection invoice 1/16/01 (PHKS 070912-070962)

EPA bill for collection 12/7/03 (PHKS 072550-72584)

Pitney Hardin Kip & Such letter dated 5/30/02 with report from Nihill and Rilley P.C. regarding EPA 12/5/01 invoice with invoices attached to BFAG group members (PHKS 070472-70480)

EPA bill for collection dated July 2, 2002 (PHKS 070497-070523)

EPA bill for collection dated January 27, 2003 (PHKS 072791-072815)

EPA collection invoice dated 5/13/02 (PHKS 072818-072821)

Boarhead Farm NPL Superfund Site Weekly Operations Report for week ending Saturday 3/6/93 to week ending September 3, 1992 (PHKS 001207-001289)

EPA summary of activities (June 16, 1992-July 17, 1992) (AR100027-028, AR100053-074, AR100089-102, AR100009-0014)

Memorandum dated July 12, 1989 from TAT Region III to MPowell OSC, EPA Region III (PHKS 001335-1345)

EPA memorandum dated 12/3/92 from Abraham Furtis to Deborah Y. Deitrich (AR400010-012 or 112?)

EPA February 26, 1992 memorandum from Edwin B. Erickson to Donald R. Clay (AR400001-009)

ATSDR record of activity dated 7/16/92 (AR305183-185)

EPA letter dated January 17, 1996 from Harry Harbol Project Manager, to David Ewold PADEP (AR308564)

EPA letter dated August 5, 2004 to Montgomery McCracken Walker & Rhodes with revised bill for collection (PHKS 061450-1455)

Memorandum from Edwin B. Erickson, Regional Administrator, USEPA Region 3, to Donald R. Clay, Assistant Administrator, USEPA, Office of Solid Waste and Emergency Response, September 4, 1992 ("the Boarhead § 9604(c)(I)(C) Waiver")

USEPA Proposed Plan for the Site, 1/98

Revision to Notice of Lodging of Consent Decree Under CERCLA Published on January 8, 2002, U.S. Department of Justice, Wednesday, January 23, 2002, 67 **FR** 3233)

Letter from Glenn Harris to "Boarhead Defendants," 7/12/07 (BSAI082007 - BSAI0823)

USEPA cost report re services rendered by "Environmental Technology of North America" for "Period of Performance" 6/18/92 to 6/18/93, "Initiate Removal Action with appropriate personnel and equipment at Boarhead Farms Site" (BSAI 082200 - BSAI 082201)

IV. Exhibits re: Settled Defendants

A. Bostik South

1975-1976 Chemical Leaman and Matlack shipping documents (BSAI00186-2321)

Bostik South documents (BSAI012996-BSAI013002)

Crown Metro, Inc., 2003. Information and Document Disclosure. March 20, 2003.

Emhart Industries, Inc. 2003. Information and Document Disclosure, with attachments EMHA0001-20. March 20, 2003.

Emhart Correspondences to USEPA, 1988. BSAI001860-5.

B. Novartis

Ciba-Geigy shipping records, 1976-1977 (BSAI026638-745, BSAI004078-253)

Ciba Geigy, Vendor Value Listings 1974-1975. BSAI004046-77.

Ciba-Geigy, 1988. Response letter to USEPA June 10, 1988 request for information. July 25, 1988. BSAI004015-20.

Ciba Specialty Chemicals Corporation, 1997. Response to USEPA March 19, 1997 letter. March 24, 1997. BSAI026746.

Novartis Corporation, 2003. Response to Case Management Order in Boarhead Farms Agreement Group v. AETC et. al. March 18, 2003. 3 pages.

USEPA, 1997. Request for information letter to Ciba Geigy Corporation, March 19, 1997. BSAI026749-769

Ciba-Geigy April 21, 1997 Response to the EPA

Ciba-Geigy March 8, 1999 Response to the EPA

Ciba-Geigy March 24, 1999 Response to the EPA

C. Plymouth Tube

Ellwood Ivins Tube Co., 1971. Department of the Army, Corps of Engineers, Application for Permit to Discharge or Work in Navigable Waters and Their Tributaries. June 10, 1971. BSAI032686-692.

Hawk, Hugh, 1977. Correspondence to PADER re: Hazardous Waste. May 24, 1977. BSAI005209.

Plymouth Tube Co., 1988. Correspondences to USEPA re Boarhead Farms Site. June 22, 1988, October 25, 1988. (BSAI000361, BSAI000358).

Copies of historical documents related to DeRewal Chemical Co. and Plymouth Tube Co. BSAI013067-079, BSAI052293-302, BSAI1020570, BSAI052294.

D. Quickline

DeRewal Chemical Company, 1973. Invoice to Quickline Design, Inc. BSAI032908.

DeRewal Chemical Company, 1973. Copy of correspondence to F. Marchewka of Quickline Design, Inc. March 2, 1973. BSAI016524.

McAndrew, Patrick F. 1996. Letter to L. Miller of USEPA, re Boarhead Farms Site. February 1, 1996.

Schmidt, Sanford F. 2003. Letter to Glenn Harris re Quickine Design & Mfg. May 16, 2003.

E. Rohm & Haas

Rohm and Haas Company, 2003. Initial Disclosure pursuant to February 3, 2003 Case Management Order

Rohm and Haas Black Acrylic Acid Monomer (BSAI 062253)

Drawing of label on Rohm and Haas drum (BSAI 062262)

Photographs of Rohm and Haas drum (BSAI 062280)

Photographs of packing Rohm and Haas drums (BSAI 062289)

Tetra Tech log indicating discovery of Rohm and Haas Glacial Acrylic Acid Monomer drum (BSAI 062255)

Drawing of label from Glacial Acrylic Acid Monomer drum (BSAI 062264)

3 photographs of drum and label (BSAI 062289-062290)

Drum Photo # 0012

Code Documents (PHKS 065008-065011).

Chain of Custody Record for sample number BF2-WC-MA:22:DM:RHAA designated as BF-22 (BSAI 058448)

Echo test analysis (BSAI 058447)

Disposal documents (BSAI 059298, 059427-059431, 059299, 059432-059434).

Rohm and Haas' Glacial Acrylic Acid Monomer (photo nos. 0035, 0035A and 0035B)

Chain of Custody Record (BSAI 059478)

Echo test analysis (BSAI 058442-058445)

Disposal records (BSAI 059443-059445, 059272).

F. Simon Wrecking

Jonas ledger page entitled "Simon Wrecking Co. Williamsport", undated, no Bates #, included with materials labeled from a file "Boarhead Farms Superfund Site, 011938.074694, Jones 3-Ring Binder Pages Used by EPA, Redwell #24".

Morgan, Sharon Oras, 2003. Correspondence to Glenn Harris, re Boarhead Farms Group v. Simon Wrecking Co. Inc. et al. March 20, 2003.

Handwritten notes (possibly from DeRewal Chemical Co. files?), Bates #'d BH 000 3959 and BSA1016578.

G. Unisys

Enclosure D - BH 000 3962 through 3966, BH000 2554.1, BH 000 2554 Drinker, Biddle, & Reath, 2003. Transmittal of Unisys Corporation's submissions to the document repository. March 20, 2003.

Document Submission of Defendant Unisys Corporation pursuant to Case Management Order of February 3, 2003. UNIS-0001 through UNIS-0020.

Unisys, 1992. Correspondence to USEPA, Re: Boarhead Farms Site. November 12, 1992. PHKS027487-92.

Unisys, 1988. Correspondence to USEPA, Re: Boarhead Farms Site. July 19, 1988. BSAI001847-52.

H. U.S. Navy

Sansonetti, Thomas L., 2003. United States' Filing Pursuant to Paragraph 3.B(3) of the Case Management Order, BFAG v. AETC, Civil Action No. 02-3830. March 19, 2003.

I. Rahns/Techalloy

Section 104 (e) Response of Rahns Specialty Metals, Inc. (RAHN0001-RAHN0015)

Waste inspection report issued by Pennsylvania Department of Health Sanitary Engineering, dated 2/9/70 (RAHN 0012)

DeRewal Invoice to Techalloy dated 8/10/72 for removal of twenty drums of waste oil (Boarhead Exhibit P-37) (BSAI 032975)

Techalloy letter to Pennsylvania Department of Environmental Resources dated 10/12/72 (RAHN 0013)

DeRewal Chemical Company letter to Carpenter Technology Corporation dated November 27, 1972 (Boarhead Exhibit P-32) (BSAI025184)

DeRewal Chemical Company timecard for Bruce DeRewal dated 9/21/73

DeRewal Chemical Company timecard for “Walt” undated (RAHN 0016)

Techalloy Purchase Order no. R3453 dated 11/28/73 (RAHN 0014)

Answers to Plaintiff’s Interrogatories Addressed to Techalloy, Inc. in Borough of Collegeville, et al. v. Superior Two Company, et al. , Montgomery County CCP, No. 81-7042 (RAHN0245-0268) (Marked as Exhibit Stufflet-1, 12/22/04)

August 1972 DCC invoice to Techalloy (P-37);

July 14, 1972 DCC quotation letter to Techalloy;

October 12, 1972 Techalloy letter to PADER (RAHN 0288);

11/26/73 Techalloy purchase order to Liquid Removal Service;

DCC time card for Bruce DeRewal dated 9/21/73;

DCC time cards for “Walt” dated 11/26 and 11/27/73;

5/16/73 PADER Waste Discharge Inspection Report of Techalloy (RAI-1N-521);

10/17/73 PADER Regional Engineer’s Review of Techalloy (RAHN-0592-93)

6/5/72 Waste Inspection Report of Techalloy;

August 20, 1971 PADER Waste Discharge Inspection Report of Techalloy (RAHN-0622);

Techalloy 104(e) response to EPA;

February 1973 portions of Techalloy accounts payable register (Senin-2);

Sanitary Sewerage System, Drawing No. S-10 (Moran-1);

Application for Plumbing Permit to Connect Building to Public Sewer (Moran-2 and RAHN 1251-59);

Portions of Weston Technical Report (RAHN-0539- RAHN0555)

Deposition of Thomas Hess (12/22/04)

Deposition of Theodore Hahn (1/27/05)

Deposition of Peter Senin (2/24/05)

Deposition of Alfred Stufflet (12/22/04)

Deposition of Czerpak (11/12/88)

Deposition of Theodore Hahn

Deposition of John T. Moran

J. Thomas & Betts

Invoices from DCC to Ansley for 1971 regarding pick up of waste chromic acid.

K. Etched Circuits/Flexible Circuits

All documents recovered from the Bucks County Department of Health files for Flexible Circuits, produced at Bates Range BSA1082378-082771

11/6/87 letter from Stolsteimer to EPA

10/2/87 letter from Bach to EPA

9/11/87 letter from Bach to EPA

Handwritten notes detailing DeRewal purchases and payments

10/13/87 handwritten notes by Zia

1/10/72 letter from DeRewal

9/22/00 letter from Barbin to EPA

1/27/86 letter and PPC Plan

5/27/83 letter

Undated Flexible Circuits Inc's promotional material

Flexible Circuits' 1969 Annual Report

Multiple DeRewal invoice's and pickup. tickets 1973-75.

Deposition of Melvin Bach

Deposition of George Stolisteimer

Deposition of Ralph Parker

Deposition of Richard Yeatman

V. Exhibits re: Non-Settled Defendants

A. Carpenter Technology Corporation

6/12/73 contract (Cheri-2) and legal department cover letter (Cheri-1);

12/20/73 purchase order (Cheri-3);

“Waste Acid Removal Cost” chart (Cheri-8);

“DeRewal Chemical Co. Waste Acid Removal” chart (Cheri-7);

“DeRewal Chemical Co. 80#228” chart (Cheri-6);

10/8/74 Memo (Mann-4);

2/25/71 letter (Mann-15);

Analysis Requests (Mann-3);

Handwritten notes (Mann-12);

7/17/69 Memo (Mann-8);

7/8/69 Handwritten telephone note (Adams-2);

2/25/70 Memo (Mann-14);

Polinko Affidavit;

Richard Cheri Deposition;

William Reger Deposition;

James Adams Deposition;

David Mann Deposition;

Robert Elbert Deposition;

6/12/73 Agreement between DeRewal Chemical Co., Inc. and Carpenter Technology (Cheri-2) and legal department cover letter dated 6/5/73 forwarding proposed Agreement (Cheri- 1);

12/20/73 purchase order (Cheri-3);

“Waste Acid Removal Cost” chart (Cheri-8);

“DeRewal Chemical Co. Waste Acid Removal” chart (Cheri-7);

“DeRewal Chemical Co. 80#228” ledger sheet (Cheri-6);

10/8/74 Memo regarding waste acid disposal costs (Mann-4);

2/25/71 letter from David Mann to Ernest Roth regarding CarTech waste acids (Mann-15);

Analysis Requests (Mann-3);
Handwritten notes (Mann-12);
7/17/69 Memo regarding evaluation of Revere Chemical Corporation (Mann-8);
7/8/69 Handwritten telephone note (Adams-2);
2/25/70 Memo confirming Revere Chemical no longer removing CarTech's waste hydrochloric acid (Mann-14); and
Polinko Affidavit dated 10/12/06.

B. NRM Investments

4/87 business confidential response to EPA except for lab reports;
February 1975 letter to NJDEP;

C. AETC (Diaz)

D. Handy & Harman

1/7/93 letter from Curran to EPA;
September 1992 Site Investigation;
10/29/92 letter from Rosato to EPA;
February 1973 DCC invoice;
Handy & Harman interrogatory responses
Deposition of Jay Crawford
Deposition of Mary Kolimar
Deposition of Thomas Curran

The foregoing is exclusive of any unauthenticated Jonas records other than bills of lading issued by NRM to Jonas.

Part IV

Damages(a) Plaintiffs' Claim against Investment Co.

Plaintiffs seek to recover 25% of the entire losses from the Investment Company. They have hugely overstated the fraction for the following reasons;

First damage defense: The sole nexus testimony linking NRM to Boarhead is that of Manfred DeRewal, Jr. As above, in deposition before EPA he insisted he took no NRM waste to Boarhead. In a later deposition in this case, he insisted he lied under oath in the earlier deposition and that he took a small amount of waste from NRM to Boarhead. If the factfinder believes the witness is unworthy of belief or that his earlier testimony was accurate, there is no proven nexus between Investment Co. and Boarhead. Accordingly, Investment Co., would have no liability to any person.

Second damage defense: should the more recent testimony of Manfred DeRewal, Jr. be believed, Investment Co.'s waste delivered to Boarhead was between ten and fifteen tankers of approximately 4,000 gallons per tanker, say 50,000 gallons, total (12.5 x 4000). Based upon *no* evidence respecting waste to Boarhead over 50,000 gallons, plaintiffs attribute 650,475 gallons of Boarhead waste to NRM. Instead of 25% by volume of waste to the site that plaintiffs claim

(650,475/2,568,328), Investment's share would, volumetrically, be one-tenth of that or 2.5% (50,000/(2,568,328 – 600,000). Accordingly, even assuming that pure volumetric contribution to the site controlled, any damage caused by this waste would be relatively modest and considerably less than Investment Co. and Worthington have paid to date.

Third damage defense: Pure volumetric contribution does not control: The ROD and the studies and reports that preceded it say that certain volatile organic compounds and named metals concentrated at identifiable “hot spots” and emanating therefrom, drove the remedy. Plaintiffs do not distinguish between the NRM waste and the wastes produced by others (chiefly plaintiffs and in particular SPS) that were highly toxic as compared to NRM's pickle liquor waste which as Investment Co.'s expert will explain was nothing more than “rusty water.” In failing to make the distinction, plaintiffs ignore *Alcan*³ and the Gore factors which have been adopted by Third Circuit authority.⁴ Investment Co.'s expert will testify that the pickle liquor components, by the time of the ROD and the preceding investigations took place, had long since dispersed and caused no threat to human health or other environmental harm. Pickle liquor, in other words, did not incur the response costs, a necessary element in proving a Section 107 or a 113 case. This consideration alone would reduce the share of Investment Co. to “0.”

³ 964 F.2d 252, 266 (3d Cir.1992).

⁴ See e.g. *Beazer Estate*, 412 F.3rd. 429 (2005).

Fourth damage defense: Investment Company is the only party remaining in this litigation who, without coercion, participated in remediation. Plaintiffs – all recipients of special letter notices – award themselves a 50% reduction in liability by reason of their (coerced) cooperation. Investment Co. should have a discount of at least that amount should there be a liability determination against Investment Co. To date Investment Co., together with Worthington has contributed \$699,109.86 (one-half each) to the OU 1 project.

(b) Other Parties' Liability to Investment Co.

Consistent with the controlling case management order and *Atlantic Research, supra*, Investment Co. has counterclaims and crossclaims against all parties by reason of its voluntary participation in OU 1. The foregoing considerations will apply to each such claim in determining relative liability of those parties to Investment Co.

Part V

Undisputed and Disputed Facts

(a) Undisputed Facts

1. National Rolling Mills Co. (hereafter “NRM”) a steel rolling mill installed a vertical pickle line in its Malvern plant in 1968 or 1969. As part of its operation:

(i) Two sets of side-by-side spigots arranged vertically in a line sprayed a hydrochloric acid solution on ascending and descending uncoiled steel bands to remove rust.

(ii) The used acid mixed with rust is known in the industry and will hereafter be referred to as "pickle liquor."

(iii) At times pertinent to this litigation, NRM's pickle liquor was composed of hydrochloric acid, a ferrous compound (ferrous or ferric chloride) and water.

(iv) Beginning in 1969, NRM installed an acid reclaiming facility designed to distill, recapture and reuse the sprayed hydrochloric acid until it became too weak for its intended purpose and became pickle liquor waste. When it became too weak, NRM arranged to have the pickle liquor waste transported from its factory.

2. NRM contracted with Jonas to remove its pickle liquor wastes during part of the time pertinent to this litigation. DeRewal performed part of the hauling that Jonas contracted do. ("DeRewal" herein means DeRewal family members, their employees, DeRewal Chemical Corporation, ECC or other entity or person under the DeRewal family control.)

3. NRM, at its same plant, also had a cleaning line, a cold roll "Z" mill, a temper mill, a plating line, and an annealing process, all with accompanying wastes, separate from the pickle liquor waste.

4. Jonas did not remove cleaning or rinsate wastes, Z mill, temper, plating or annealing wastes or any other wastes from NRM's factory waste except pickle liquor.

5. NRM tested the composition of its waste pickle liquor (see 1 (iii) above) and generally reflected it on bills of lading leaving NRM.

6. The periods of DeRewal hauling defendants' waste (referenced hereafter as "period in question") included at least the following periods:

(i) January 1, 1972 to the opening of Ontario, a Philadelphia waterfront disposal site, on or about December 1, 1973. During the pre-Ontario period nearly all of the wastes that DeRewal hauled from NRM Investment Co.'s NRM factory went to Boarhead. (NRM Investment Co. will be referred to as "Investment Co." in this section.)

(ii) The Ontario period lasted from December 1, 1973 until Philadelphia officials closed Ontario on or about June 30, 1975. During the Ontario period DeRewal hauled quantities of wastes from Investment Co.'s factory to Ontario. During the same period, DeRewal also hauled some wastes to sites other than Boarhead or Ontario.

(iii) (I) From July 1, 1975 until June 1, 1976, the “gap” period, DeRewal hauled at least some quantities of wastes from Investment Co.’s factory to sites other than Ontario or Boarhead. (II) During the gap period at least some wastes were also delivered to Ontario and/or Wissinoming.

(iv) The Wissinoming period, another Philadelphia waterfront disposal site, lasted from June 1, 1976 until March 29, 1977 when the entire DeRewal operation closed. DeRewal hauled quantities of wastes from Investment Co.’s factory to Wissinoming. They also hauled some wastes to sites other than Boarhead, Wissinoming, or Ontario.

7. Investment Co. was one of two companies that operated NRM during the period in question.

(i) TI Group Automotive Systems, LLC (“TI”) operated NRM as a division of Bundy during the pre-Ontario period until December 1, 1973 and part of the Ontario period until Investment Co.’s purchase of NRM on May 31, 1974.

(ii) Investment Co. operated NRM from May 31, 1974 until August 31, 1979. This covered part of the Ontario period, and all of the gap and Wissinoming periods.

8. There were spills or discharges of hazardous substances at Boarhead unrelated to NRM’s activities before and during Investment Co.’s ownership of NRM.

(i) In March 1973 there were chemicals leaking from drums, liquid and solid wastes on the ground, chemicals leaking into waste pools, copper ammonia sulfate, paint solvents, arsenic pent oxides, pesticides, copper naphtholate, and drums.

(ii) In October 1973 there was a spill of 3000 gallons of ferrous chloride occurred saturating that area.

(iii) In 1976 there was a spill of 4000 gallons of ammonia.

(iv) In September 1976 there was a spill of 2,700 gallons of sulfuric acid.

(v) There were deposits from all of the generators or arrangers named in plaintiffs' original complaint other than Investment Co.

9. Based upon Jonas and DeRewal records that have been discovered,

(i) With the exception of invoices commencing in September 1975, Jonas, and not DeRewal, submitted its invoices to NRM during that part of the period in question.

(ii) Respecting the invoices Jonas submitted to NRM, NRM paid Jonas for waste hauling during part of the period in question.

(iii) The bills of lading that have been discovered show Jonas as the hauler with employees of DeRewal entities as the drivers.

(iv) The Jonas bills of lading that have been discovered as evidenced either by sequence or date all were during the gap period.

(v) No bill of lading shows Boarhead as a destination of NRM waste.

(vi) All bills of lading show a destination under Jonas' control.

(vii) No other document discovered shows waste taken from NRM and delivered to Boarhead.

10. During the period in question the drivers who hauled or could have hauled waste from NRM included:

(i) John Barsum who went there daily during part of the period in question.

(ii) Manfred DeRewal, Jr. who went there daily during part of the period in question.

(iii) Bruce DeRewal who went there daily during part of the period in question.

(iv) June Stephens, a pre-Ontario employee, who went a few times to NRM but does not know the time period, i.e. during Investment Co.'s or TI's operation of NRM, and does not know if she hauled wastes out or was engaged in other business.

(v) Richard Minthorn, now deceased. He acted as dispatcher for the DeRewal family and spent much of his time at Wissinoming. Although he knew of NRM, he never took waste from NRM's plant site.

(vi) Ed Cypecki (a/k/a Long) who was a part time driver who drove to a number of locations for DeRewal, including NRM and others. He worked irregularly.

(vii) John Barsum and Cypecki were neighbors and Barsum introduced Cypecki to the DeRewal family.

11. Alternative 1: Exclusive of Manfred DeRewal, Jr. no driver took NRM's waste to Boarhead during Investment Co.'s period of owning NRM.

Alternative 2: Exclusive of Manfred DeRewal, Jr. no driver took NRM's waste to Boarhead during the Ontario and Wissinoming periods.

12. If Manfred DeRewal, Jr. took NRM's waste pickle liquor to Boarhead, an assertion which Investment Co. disputes:

(i) He took NRM waste there no more than ten to fifteen times with average tanker loads of 4000 gallons.

(ii) The area, if any, on which NRM or other pickle liquor was disposed of at Boarhead is unknown.

(iii) Whether NRM's pickle liquor interacted with other wastes that had been brought to Boarhead is unknown.

13. DeRewal and Jonas had sites available to them for disposal of NRM wastes other than Boarhead, Ontario and Wissinoming. Other waste haulers removed wastes from NRM during the period in question. According to discovery or investigation in this litigation, some of the alternate sites and alternate waste haulers were:

- (i) A landfill near NRM off Route 100.
- (ii) Under the Platt Bridge in Philadelphia.
- (iii) Any available manhole.
- (iv) G.R.O.W.S.
- (v) Sewell, New Jersey.
- (vi) Two or three landfills that Jonas directed.
- (vii) Pier 41 in Philadelphia.
- (viii) Kingswood, N.J.
- (ix) In the Schuylkill.
- (x) Removed by other haulers such as Chemical Lehman, Quincy Jones, PenTech and Sach Trucking.
- (xi) Sold to Philadelphia for water treatment.
- (xii) The ChemFab site in Doylestown, Pa.
- (xiii) A wastewater treatment company in Beltsville, Maryland near the Annapolis Bridge.

14. During the Gap period, no less than 35% of NRM's waste pickle liquor was deposited at sites other than Boarhead, Ontario and Wissinoming.

15. On a date during the period in question but after the summer of 1975 when NRM personnel found that Jonas was illegally dumping in the Schuylkill River, NRM discontinued using Jonas and DeRewal drivers as waste haulers.

16. Every plaintiff in these proceedings received a "special notice" letter from EPA directing the cleanup of Boarhead.

17. Investment Co. did not receive a "special notice" letter.

18. Investment Co. and its successor in interest, Worthington, joined the OU 1 Group at the outset of its formation:

(i) OU 1 activities included groundwater extraction, metal precipitation, air stripping, the installation of monitoring wells, residential well treatment, and phytoremediation.

(ii) Pursuant to the OU 1 agreement, Investment Co. and Worthington have, together, paid for Boarhead remediation the sum of \$699,109.86, each having contributed one-half thereof.

(iii) Both Worthington and Investment Co. have fully performed all their obligations under the OU 1 agreement.

19. In September 1987 EPA issued a Hazard Ranking System report leading to Boarhead's NPL listing.

20. The Hazard Ranking report listed chemicals of concern, none of which included hydrochloric acid or any ferrous compounds.

21. The Hazard Ranking score of 39.9 for the site was due primarily to elevated levels of organic contaminants (including trichloroethylene and 1,1,1-trichloroethane) and inorganic contaminants (including zinc, chromium, and lead) in groundwater.

22. EPA conducted two removal actions in 1992 and 1993 that involved drums, soil and wastewater. Neither of these removals included hydrochloric acid or any ferrous compounds.

23. The majority of response costs at Boarhead were incurred due to the removal of 2,500 drums of wastes and the migration of organic solvents from the drum location.

24. A third removal action in 1995 involved organic and inorganic contaminants to eliminate migration of contaminated groundwater. This removal did not include hydrochloric acid or any ferrous compounds.

25. Upon completion in 1997, the EPA's RI/FS included a "Baseline Human Health Risk Assessment" identifying metals and organic compounds exceeding acceptable limits, the prominent metals being arsenic and chromium. The RI/FS did not include hydrochloric acid or any ferrous compounds as chemicals of concern.

26. In November 1998, the EPA issued a record of decision (“ROD”). The ROD lists contaminants of concern for surface and subsurface soils, surface water and groundwater, sediments and hot spots. The contaminants of concern listed in the ROD did not include hydrochloric acid or any ferrous compounds. The ROD referenced the pre-Investment Co. 1973 spill of ferrous chloride.

27. The hot spots identified in the ROD were areas with high concentrations of volatile organic compounds.

28. Wells in close proximity to Boarhead hot spots, when tested had greater exceedances and the higher concentrations of chemicals of concern than other Boarhead areas.

29. Plumes originating from Boarhead hot spot areas decrease in contamination levels as they extended farther from their points of origin.

30. Human health exposure to groundwater was a major concern of EPA in the development of EPA’s risk assessment.

31. The majority of the carcinogenic risk and noncarcinogenic hazard at Boarhead were due to VOCs and inorganics, in particular arsenic.

32. Contamination of shallow groundwater beneath the site by VOCs (primarily PCE, TCE, 1,1-DCE, vinyl chloride, benzene, and toluene) and metals (primarily arsenic, chromium, and manganese) contributed the most to the unacceptable levels of risk identified through EPA’s human health RA.

33. Because of its low acidic strength, NRM's pickle liquor waste, if in fact (i) it was ever released at Boarhead and (ii) it ever came in contact with other wastes, was unable to displace metals or increase metals mobility to any significant degree.

34. If and to the extent NRM's pickling operations produced wastes containing metals other than ferrous compounds:

- (i) Such metals were in trace amounts.
- (ii) They incurred no environmental threat or response costs.
- (iii) They were contained in pickling rinsate.
- (iv) They were traceable to customer steel that varied from year to year.
- (v) They were hauled from NRM by others than DeRewal/Jonas.

35. Trace amount metals are diluted on contact with soils or groundwater to low ppm/ppb levels.

36. The ROD provides that the effects of acid spills probably were short-lived because the acids would have been flushed from the soil by infiltrating water and possibly would have been neutralized by the limited buffering capacity of the soil.

37. In calculating relative responsibility for cleanup costs at Boarhead, plaintiffs agree that voluntary participants in the cleanup should receive a fifty percent credit against the amounts otherwise assigned to them.

(b) Factual Assertions by Others Adopted or Unopposed by Investment Co.⁵

(i) Listed by Plaintiffs: 1-8, 56-60, 116, 119-137, 139, 142-146, 148, 157-160, 163-165, 173-175, 183-185, 187-190, 194-197, 204-216, 218, 220-269, 271-272, 274-275, 276-278, 280-281, 283-284, 286-301, 303-320, 345-363.

(ii) Listed by Carpenter Technology: 1-6, 13-18, 20, 22-23, 26-28

(iii) Listed by AETC: Entries under Ford, SPS, Cytec, Agere, Carpenter Technology, Handy and Harman, and all settled defendants.

(iv) Listed by Handy and Harman: 1-43, 46-48, 52-78, 88, 90, 96-109, 115-122, 127-140.

(v) Listed by Ashland: To be completed.

(c) Disputed Facts

Some drivers for DeRewal removed NRM's pickle liquor from NRM's plant before May 31, 1974.

The Boarhead removal actions were undertaken primarily to remove buried drums and associated soils.

⁵ These numbers are based upon a preliminary submission made by the parties; subject to change if the final submission alters the numbering.

The Boarhead remedial action was undertaken primarily to mitigate ground water contamination from past releases of organic solvents.

Organic solvent and heavy metal contamination originated from the areas of drum burial and migrated from there.

[Parts to be added depending upon parties' rejecting of the agreed facts listed above.]

Part VI

Trial Time Estimate

The parties will continue to refine the disputed and undisputed facts and the exhibits that will be admitted with and without authentication and determined or disputed to be relevant. Depending upon their progress in this effort, NRM Investment estimates the total trial time to be three to five weeks.

May 19, 2008

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AGERE SYSTEMS, INC., et al.,
Plaintiffs

v.

ADVANCED ENVIRONMENTAL
TECHNOLOGY CORPORATION, et al.,
Defendants

IN THE UNITED STATES
DISTRICT COURT FOR THE
EASTERN DISTRICT OF
PENNSYLVANIA

CIVIL ACTION

NO: 02-cv-3830

CERTIFICATE OF SERVICE

I, Edward Fackenthal, hereby certify that service of Defendant NRM Investment Company's pretrial memorandum was made upon the following parties by electronic mail, a true copy on May 19, 2008:

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